

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
15 July 2004 (15.07.2004)

PCT

(10) International Publication Number
WO 2004/058819 A2

- (51) International Patent Classification⁷: **C07K 14/705** (74) Agents: WITHERS & ROGERS et al.; Goldings House, 2 Hays Lane, London SE1 2HW (GB).
- (21) International Application Number: PCT/TB2003/006412 (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 24 December 2003 (24.12.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 0230177.8 24 December 2002 (24.12.2002) GB (84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant (*for all designated States except US*): **KARO BIO AB** [SE/SE]; Novum, S-141 57 Huddinge (SE).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **FARNEGARDH, Mathias** [SE/SE]; Borstvetev. 6, S-17 835 Ekero (SE). **BONN, Tomas** [FI/SE]; Visattrav. 21, S-141 50 Huddinge (SE). **SUN, Sherry** [SE/SE]; Johan Skyttes V. 300, S-124 34 Alvsjo (SE). **LJUNGGREN, Jan** [SE/SE]; Wiboms V. 8, S-171 60 Solna (SE). **AHOLA, Harri** [SE/SE]; Rackarbergsgaten 18, S-752 32 Uppsala (SE). **CARLQUIST, Mats** [SE/SE]; Oskarsvägen 3, S-163 43 Spanga (SE).
- Published:**
— *without international search report and to be republished upon receipt of that report*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: PROTEIN CRYSTAL

(57) Abstract: The present invention is in the fields of biotechnology, protein purification and crystallization, x-ray diffraction analysis, three-dimensional computer molecular modelling and rational drug design. The invention is directed to the Liver X receptor and ligands for this receptor, and in particular to crystalline Liver X receptor beta (LXR β) and to methods of identifying ligands utilizing LXR β , as well as to compounds, compositions and methods for selecting, making, and using therapeutic or diagnostic agents having LXR β modulating or binding activity.

WO 2004/058819 A2

Protein Crystal

FIELD OF THE INVENTION

The present invention is in the fields of biotechnology, protein purification and crystallization, x-ray diffraction analysis, three-dimensional computer molecular modelling and rational drug design. The invention is directed to the liver X receptor β (LXR β , NR1H2) and ligands for this receptor, and in particular to crystalline LXR β and to methods of identifying ligands utilizing LXR β , as well as to compounds, compositions and methods for selecting, making, and using therapeutic or diagnostic agents having LXR β modulating or binding activity.

BACKGROUND OF THE INVENTION

Liver X receptors are members of the superfamily of nuclear receptors. These transcription factors regulate target genes through a complex series of interactions with specific DNA response elements as well as transcriptional coregulators. The binding of ligand has profound effects on these interactions and has the potential to trigger both gene activation and, in some cases, gene silencing. There are about 50 sequence-related nuclear receptors in humans and the family comprises receptors that recognize hormones, both steroidal and non-steroidal, but also receptors responding to metabolic intermediates and to xenobiotics. There are also a number of so-called orphan receptors where the natural ligand is unknown. Some of the receptors show a very specific and high affinity ligand binding, like the thyroid hormone receptors, while others have a substantially lower affinity for their ligands and are also highly promiscuous in terms of ligand selectivity. Like many of the other non-steroid hormone receptors, LXR functions as a heterodimer with the 9-cis-retinoic acid receptor (RXR) to regulate gene expression. Together with PPARs and FXR LXR β s represent a subclass of so called permissive RXR heterodimers. In this subclass, the RXR heterodimers can be activated independently by either the RXR ligand, the partner's ligand or synergistically by both.

LXRs consist of two closely related receptor isoforms encoded by separate genes – LXR α (NR1H3) and LXR β (NR1H2). As expected, the largest sequence differences are located in the N-terminal domain and in the so-called hinge region connecting the DBD and the LBD. LXR α shows tissue restricted expression with the highest mRNA levels detected in the liver and to a lesser extent in the kidney, small intestine, spleen and adrenal gland. In contrast, LXR β is ubiquitously expressed. Both LXR isoforms have been shown to be activated by specific oxysterols that can be formed *in vivo*. Recently potent, non-steroidal synthetic ligands have been described. T0901317, GW3965 and F3MethylAA all have binding IC₅₀s around 10 nM.

Important insight into LXR biology has been obtained through the study of LXR deficient mice. Both LXR α and LXR β knockout mice have been described. The LXR α null strain exhibits a striking inability to metabolize and excrete excess cholesterol when challenged with a high-cholesterol diet. The explanation appears to be an inability to up-regulate the rate-limiting enzyme in cholesterol conversion to bile acid, CYP7A, in response to the excess cholesterol. As a consequence, the conversion of cholesterol to bile-acid that would normally occur is blunted and cholesteryl esters deposit in the liver ultimately resulting in liver-failure. In contrast, the LXR β knockout strain maintains its natural resistance to a high cholesterol diet. These important findings not only prove an important function of LXR α in rodent cholesterol metabolism, but also suggest that the LXR dependent regulation of CYP7A is LXR-subtype selective. The CYP7A LXR response element is not well conserved between rodents and man. LXRs are therefore not expected to be main regulators of cholesterol conversion to bile-acids in humans. This notion is supported by results from *in vitro* assays using cultured human cells. However, more recently, LXRs have been shown to regulate also several other genes involved in cholesterol and lipid homeostasis. Prominent examples are the phospholipid/ cholesteryl ester transporter ABCA1, ABCG1 and the SREBP1c gene that, in turn, induces fatty acid synthesizing enzymes. Increasing insight into the involvement of LXRs in cholesterol and fatty acid homeostasis has led to considerable interest in LXRs as targets for drug development. As an example, one hallmark of atherosclerosis is the build-up of cholesteryl esters in macrophages of the arterial wall, transforming the cells into so-called foam cells that, in turn are constituents of the atherosclerotic plaque. The potential to increase cholesterol

efflux from macrophages/foam cells by inducing genes such as ABCA1 and/or G1 thereby preventing or even reversing the atherosclerotic process make LXRs highly interesting drug targets.

The inventor's understanding of how nuclear receptor ligands exert their effects has been dramatically enhanced by the elucidation of the crystal structures of the apo or liganded LBDs of several nuclear receptors. These structures have revealed a common, mainly a helical, fold unique for LBDs of nuclear receptors. It comprises a core layer of three helices (H5/6, H9 and H10) sandwiched between two additional layers of helices (H1-4 and H7, H8, H11 respectively). This arrangement creates a wedge shaped molecular scaffold that contains a wider upper part, which shows the highest degree of sequence conservation between the LBDs. The narrower lower part is folded to form a hydrophobic cavity into which the ligand can bind. The remaining secondary elements, an antiparallel β -sheet comprising 2-4 strands and H12 (sometimes also referred to as the AF-2 domain) sits on each side of the ligand-binding cavity. The structures have revealed that ligands can affect the position of H12 so that an agonist puts H12 in a position allowing coactivator binding and preventing corepressor binding, while in an unliganded or antagonist bound receptor the coactivator binding site is blocked. Alternatively, the unliganded or antagonist bound receptor recruits corepressors. The binding modes of several of these coregulators have also recently been depicted in detail.

The present inventors have been able to produce LXR β crystals and to determine from that the three dimensional structure of the LXR β ligand binding domain (LBD).

SUMMARY OF THE INVENTION

The present invention refers to the crystallization of LXR β and determination of its crystallographic co-ordinates. Therefore, in a first aspect the present invention provides a LXR β ligand binding domain crystal.

In another aspect of the invention, methods for designing ligands which will bind to LXR β are provided. Such methods use three-dimensional models based on the crystals of the

LXR β ligand-binding domain. Generally, such methods comprise, determining compounds which are likely to bind to the receptor based on their three dimensional shape in particular the ligand binding domain of the LXR β . Preferably, such compounds have a structure that is complementary to the ligand-binding cavity of the LXR β . Such methods comprise the steps of determining which amino acid or amino acids of the ligand-binding domain of the LXR β interacts with the binding ligand, and selecting compounds or modifying existing compounds, to improve the interaction. Preferably, improvements in the interaction are manifested as increases in the binding affinity but may also include increases in receptor selectivity and/or modulation of efficacy.

Preferably, the ligands bind to the internal LXR β binding cavity with a high binding affinity, for example within the range of 0.01–1000 nM.

The ligands may bind tightly to the LXR β yet not up-regulate gene expression thereby inhibiting the action of endogenous LXR β activators. Thus, the invention also provides a method of inhibiting the activity of endogenous LXR β activators by providing ligands that bind to LXR β with a high affinity, blocking the activity of the endogenous ligands.

Alternatively, binding of the ligand to the LXR β may cause conformational changes to the LXR β inhibiting further binding thereto. The invention further provides a method of inhibiting the activity of endogenous LXR β ligands in an animal, the method comprising administering to the animal a ligand which binds to at least the LBD, of the LXR β with high affinity and blocks binding of further ligands to at least the LBD of the LXR β . Such ligands are potentially useful in, for example, the treatment of LXR β mediated diseases in humans. Preferably the ligands are identified by the method of designing ligands according to the invention.

DETAILED DESCRIPTION OF THE INVENTION

One aspect of the invention provides a crystal comprising at least 150 amino acid residues of the LXR β ligand-binding domain. Preferably, the said crystal comprises at least 200 amino acid residues of LXR β . More preferably, said crystal contains at least 250 amino

acid residues of LXR β . Most preferably, the said crystal comprises the entire LXR β amino acid sequence.

Preferably the crystal comprises the amino acid sequence shown as Leu-220 to Asp-458 most preferably Leu-220 to Glu-461 of a LXR β ligand binding domain as shown in Figure 5 or an amino acid sequence having at least 95%, especially above 97, 98 or 99% identity to the sequence. This numbering is based on the full sequence of human LXR β . Preferably, the crystal comprises the entire amino acid sequence shown in Figure 5.

Isolated protein consisting of the amino acid sequence listed for the crystals are also provided by the invention. The isolated protein may be used to produce the crystals.

The proposed structural identity (based on analogy to the estrogen receptor and thyroid hormone receptor) of parts of the LXR β ligand-binding domain is shown below, based on the amino acid numbering of the full LXR β .

Secondary motif	LXR β residues
Helix-1	Thr-221 to Val-249
Helix-3	Ala-261 to Val-289
Helix-4	Gly-291 to Gln-294
Helix 5	Gly-296 to Thr-308
Helix 6	Thr-308 to Arg-319
Sheet-1	Tyr-320 to His-322
Sheet-2	Glu-325 to Phe-329
Sheet-3	Phe-333 to Ser-336
Helix-7	Ser-336 to Ala-343
Helix-8	Gln-346 to Gly-364
Helix-9	Asp-366 to Ser-380
Helix-10	Pro-389 to Ile-409
Helix-11	Asp-414 to Gln-445
Helix-12	Pro-450 to Ile-456

An embodiment of this aspect of the invention provides a crystal produced using a sequence including helix 12 of LXR β . Preferably this is between Pro450 to Ile-456.

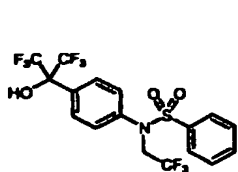
The crystals according to the invention may be usable in X-ray crystallography.

In another embodiment of the present invention there is provided a LXR β crystal as described above also including a ligand bound to LXR β or a portion thereof. Said ligand may be selected from T0901317

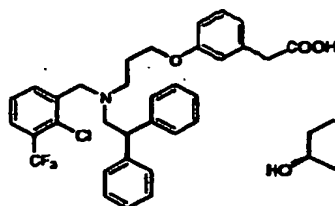
(N-(2,2,2-trifluoroethyl)-N-[4-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]phenyl]-benzenesulfonamide, CAS # [293754-55-9]; WO 00/54759), G-W-3965

(3-(3-(2-chloro-3-trifluoromethylbenzyl-2,2-diphenylethylamino)propoxy)phenyl)acetic acid, CAS # [405911-09-3]; Collins, Jon L.; et al. *J. Med. Chem.* (2002), 45(10), 1963-1966), 24(S),25-epoxycholesterol (CAS # [77058-74-3]),

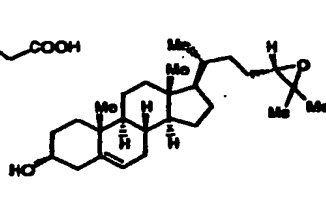
N-[1-(2-furanyl)ethyl]-N-4-pyridinyl-tricyclo[3.3.1.1^{3,7}]decane-1-carboxamide (CAS # [355833-66-8], WO-01/60818) or any other ligand that binds with reasonably affinity (<1000 nM) to the internal LXR β binding cavity. The T0901317, G-W-3965 or any other ligand may be used with a coactivator ligand such as T1F2 NR-box 1.



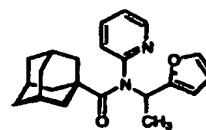
CAS #
[293754-55-9]



CAS #
[405911-09-3]



CAS #
[77058-74-3]



CAS #
[355833-66-8]

In another embodiment of the present invention there is provided a crystal of LXR β LBD belonging to the space group P2₁2₁2₁ and having the unit cell dimensions a = 59 +/- 3 Å, b = 100 +/- 5 Å, c = 176 +/- 3 Å, a = b = g = 90°.

In another embodiment of the present invention there is provided a crystal of LXR β LBD belonging to the space group P6₁22 and having the unit cell dimensions a=59 +/- 3 Å b=59 +/- 3 Å c=294 +/- 3 Å, a = b = 90°, g=120°.

In another embodiment of the present invention there is provided a crystal of LXR β LDB in complex with a coactivator peptide (such as a peptide corresponding to the first NR-box

of TIF2 (Leers, Treuter et al 1998)) belonging to the space group $P2_12_12$ and having the unit cell dimensions $a = 89 \pm 3$, $b = 91 \pm 3$, $c = 131 \pm 3$, $a = b = c = 90^\circ$.

The crystals according to the invention may have a resolution as determined by X-ray crystallography of less than 3.6 \AA , preferably less than 2.9 \AA .

In another aspect of the present invention, there is provided a machine-readable data storage medium, comprising a data storage material encoded with machine readable data which, when using a machine programmed with instructions for using said data, is capable of displaying a graphical three-dimensional representation of a crystal structure as described above or a homologue of said crystal structure. Homologues include crystals with the same space group, but with another ligand, crystals with the same space group and substantially the same dimensions, and crystals using LXR β from other species.

In yet another aspect of the present invention, there is provided a method for designing a potential LXR β ligand for the treatment of diseases modulated by the LXR β , the method comprising the steps of:

- (a) employing computational means to perform a fitting operation between the chemical entity and a binding site of LXR β identified from a machine-readable storage medium as described above; and
- (b) analyzing the results of the fitting operation to predict the association between the potential chemical entity and the binding site.

Preferably the method also comprises the steps of:

- (c) synthesizing the potential LXR β ligand based on the crystal structure of the LXR β ; and
- (d) assaying the LXR β ligand for LXR β binding, response in a LXR β reporter cell line, measuring one or more in vivo effects including but not limited to lesion area of fatty streaks in the aortic root, lipoprotein profile and serum triglyceride levels.

The method may alternatively provide the steps of:

synthesising the potential LXR β ligand based on the crystal structure of said receptor; and
assaying the LXR β ligand binding response in a LXR β reporter cell line by measuring one or more *in vitro* effects, including but not limited to changes in the activity of a LXR response element driven reporter gene such as alkaline phosphatase, green fluorescent protein, or luciferase, changes indicating that the LXR β ligand may be used for treatment of diseases modulated by LXR β .

The LXR response element may be provided within, for example, a suitable plasmid containing the response element, reporter gene and suitable termination sequences. The reporter gene will be arranged so that expression of it is under the control of the response element.

Suitable vectors include, but are not limited to, bacterial or eukaryotic vectors such as plasmids or cosmids, phage vectors such as lambda phage, viral vectors such as adenoviral vectors or baculoviral vectors, and other vectors known in the art.

The vector preferably comprises suitable regulatory sequences to allow the nucleic acid molecule of the invention to be expressed in a suitable host cell to produce protein encoded by the nucleic acid molecule. Typically, the vector comprises a suitable promoter and terminator sequences, or other sequences such as poly A sequences, operably linked to the nucleic acid molecule. Such regulatory sequences are well known in the art.

The vector may also comprise a gene to allow the vector to be selected within a cell, such as an antibiotic resistance gene or a nutritional gene. Such genes are well known in the art.

The reporter gene is preferably Green Fluorescent Protein (GFP), which is known in the art. This fluoresces and enables the position of the kinase to be identified.

A further reporter system which may be used is *lacZ* gene from *E.coli*. This encodes the β -galactosidase enzyme. This catalyses the hydrolysis of b-galactoside sugars such as

lactose. The enzymatic activity in cell extracts can be assayed with various specialised substrates, for example X-gal, which allow enzyme activity quantitation using a spectrophotometer, fluorometer or a luminometer.

Alternatively, the reporter gene may be secreted alkaline phosphatase. This is a secreted enzyme which may be assayed from a supernatant by methods known in the art.

Luciferase, another known reporter gene, may be used. This is derived from the firefly (*Photinus pyralis*). It catalyses a reaction using D-luciferin and ATP in the presence of oxygen and Mg^{2+} to produce light emission. The amount of light produced, and hence the amount of reporter gene produced under the control of the reporter element, may then be quantified.

The inventors have also identified that helix-12 of LXR β plays a key role in determining the efficacy (agonism v. antagonism) of a ligand.

Accordingly, preferably the method includes the step of modifying the potential LXR β ligand so that it:

- (a) sterically displaces helix-12; or
- (b) disrupts the dimerisation surface.

The dimerisation interface has been identified as helices H10 and H11.

In yet another aspect of the present invention, there is provided a method of designing a ligand which will bind to LXR β comprising comparing the shape of a compound with the shape of the ligand binding cavity of LXR β as obtained from a crystal according to the invention, and determining which amino acid or amino acids of the ligand binding domain interact with said compound.

In yet another aspect of the present invention, there is provided a crystallized molecule or molecular complex comprising a binding pocket defined by the structure coordinates of human LXR β ligand binding domain amino acid residues 200 or a homologue of said

molecule or molecular complex wherein said homologue has a root mean square deviation from the backbone atoms of said amino acids of not more than 1.5 Å.

In a preferred embodiment of this aspect there is provided a crystallized molecule or molecular complex comprising a binding pocket defined by the structure coordinates of human LXR β ligand binding domain amino acid residues Ser242, Phe268, Phe271, Thr272, Leu274, Ala275, Ser278, Ile309, Met312, Leu313, Glu315, Thr316, Arg319, Ile327, Phe329, Leu330, Tyr335, Phe340, Leu345, Phe349, Ile350, Ile353, Phe354, His435, Gln438, Val439, Leu442, Leu449, Leu453, Trp457 or a homologue of said molecule or molecular complex wherein said homologue has a root mean square deviation from the backbone atoms of said amino acids of not more than 1.5 Å.

A further aspect of the invention provides crystallisable compositions comprising at least 250 amino acid residues of the LXR β ligand-binding domain.

A further aspect of the invention provides a method of using the crystal of the invention in a drug screening assay comprising:

- (a) selecting a potential ligand by performing rational drug design with the three-dimensional structure determined for the crystal, wherein said selecting is performed in conjunction with computer modelling;
- (b) contacting (i.e. docking) the potential ligand with the ligand binding domain of LXR β ; and
- (c) detecting the binding of potential ligand for the ligand binding domain. Preferably, a potential drug is selected on the basis of it having a greater affinity for the ligand domain of LXR β than that of a standard ligand for the ligand binding domain of LXR β . Alternatively, potential drugs may be selected by looking for those from a number of potential drugs with the greatest binding affinity.

Preferably the standard ligand in step (c) is T0901317, GW3965, or 24(S),25-epoxycholesterol.

The method may further comprise:

- (d) growing a supplemental crystal containing a protein ligand complex formed between the N-terminal truncated LXR β and the potential drug, wherein the crystal effectively diffracts X-rays for the determination of the atomic coordinates of the protein-ligand complex to a resolution of greater than 5.0 Å;
- (e) determining the three-dimensional structure of the supplemental crystal with molecular replacement analysis;
- (f) selecting a candidate drug by performing a rational drug design with the three-dimensional structure determined for the supplemental crystal, wherein said selecting is performed in conjunction with computer modelling;
- (g) contacting a cell that expresses LXR β ; and
- (h) detecting a measure of protein synthesis in the cell; wherein a candidate drug is identified as a drug when it inhibits or enhances the expression of protein synthesis in the cell.

The method preferably comprises an initial step that precedes steps (a) wherein initial step consists of determining the three-dimensional structure of a crystal comprising a protein-ligand complex formed between an N-terminal truncated LXR β and T0901317, GW3965, or 24(S),25-epoxycholesterol, wherein the crystal effectively diffracts X-rays for the determination of the atomic coordinates of the protein-ligand complex to a resolution of greater than 5.0 Å.

The invention also provides a method of using a crystal of the invention in a drug screening assay comprising:

- (a) selecting a potential ligand by performing rational drug design with the three-dimensional structure determined for the crystal, wherein said selecting is performed in conjunction with computer modelling;
- (b) adding the potential ligand to a cDNA or protein expression assay regulated by LXR β ;
- (c) detecting a measure of a cDNA or protein expression; wherein a potential ligand that regulates the expression of protein expression is selected as a potential drug.

Such cDNA or protein expression assays are themselves known *per se* in the art.
Preferably the assay is *in vitro*.

Computers for producing a 3D representation are also provided, the representation being of:

- (a) a molecule or molecular complex, wherein said molecule or molecular complex comprises a binding pocket defined by the structure coordinates of LXR β amino acid residues Ser242, Phe268, Phe271, Thr272, Leu274, Ala275, Ser278, Ile309, Met312, Leu313, Glu315, Thr316, Arg319, Ile327, Phe329, Leu330, Tyr335, Phe340, Leu345, Phe349, Ile350, Ile353, Phe354, His435, Gln438, Val439, Leu442, Leu449, Leu453, Trp457 according to the co-ordinate tables; or
- (b) a homolog of said molecule or molecular complex, wherein said homolog comprises a binding pocket that has a root mean square deviation from the backbone atoms of said amino acids of not more than 1.5 Å, wherein said computer comprises:
 - (i) a computer-readable data storage medium comprising a data storage material encoded with computer-readable data, wherein said data comprises the structure of LXR β amino acid residues Ser242, Phe268, Phe271, Thr272, Leu274, Ala275, Ser278, Ile309, Met312, Leu313, Glu315, Thr316, Arg319, Ile327, Phe329, Leu330, Tyr335, Phe340, Leu345, Phe349, Ile350, Ile353, Phe354, His435, Gln438, Val439, Leu442, Leu449, Leu453, Trp457 according to any one of the co-ordinate tables;
 - (ii) a working memory of storing instructions for processing said computer-readable data;
 - (iii) a central-processing unit coupled to said working memory and to said computer-readable data storage medium for processing and computer-machine readable data into said three-dimensional representation; and
 - (iv) a display coupled to said central-processing unit for displaying said three-dimensional representation.

Preferably the computer produces a 3D representation of:

- (a) a molecule or molecular complex defined by structure coordinates of all of the LXR β ligand binding domain amino acid residues set forth in the co-ordinate tables; or
- (b) a homolog of said molecule or molecular complex, wherein said homolog comprises a binding pocket that has a root mean square deviation from the backbone atoms of said amino acids of not more than 1.5 Å; and wherein said computer readable data contains the coordinates of all of the LXR β ligand binding domain amino acid residues as set forth in any one of the co-ordinate tables.

The invention also provides methods for determining the 3D structure of a complex between LXR β and a ligand, therefore, which comprises:

- (a) obtaining x-ray diffraction data for crystals of the complex; and
- (b) utilizing a set of atomic coordinates a portion thereof according to the invention; and coordinates having a root mean square deviation therefrom with respect to conserved protein backbone atoms of not more than 1.5 Å to define the three-dimensional structure of the complex.

A still further aspect of the invention provides a method for determining a modelling structure of a protein containing LXR β or a complex of said protein and a ligand, which method comprises:

- (a) providing a three-dimensional structure defined by a set of coordinates or a portion thereof according to the invention; and coordinates having a root mean square deviation therefrom with respect to conserved protein backbone atoms of not more than 1.5 Å;
- (b) generating a three-dimensional model structure of the protein containing LXR β using a homology modelling method and the structure of step (a) as a template; and
- (c) subjecting the resulting model to molecular mechanics energy minimization.

The term "rational drug design", as used herein, is defined as the designing of drugs for specific purposes, such as the binding to a predetermined receptor or the treatment of a predetermined disease. Examples include the designing of a drug to specifically bind

and/or modulate nuclear hormone receptor binding, and the design of drugs to prevent or treat atherosclerosis. This is based upon the knowledge of molecular properties such as binding modes and interaction of the drug to its receptor as revealed by x-ray crystallography; the contribution of various functional groups contained in the drug to the affinity and specificity of the binding of the drug to its target; molecular geometry and electronic structure of drug and its target; and an information catalogued on analogous drug molecules. Such drug design is usually based on computed-assisted modelling and does not usually include pharmacokinetics, dosage analysis or drug administration analysis.

Computer modelling is the theoretical representation of data that simulates the behaviour or activity of systems, processes or phenomena. This includes the use of mathematical equations, computers and other electrical equipment. In the context of drug design, computer modelling allows the simulation of the strength of interaction between a drug and its target receptor.

Isolated proteins consisting essentially of the LBD of LXR β , vectors encoding such proteins and host cells are also provided. the isolated protein may be attached to a tag, such as a his-tag.

Drug candidates are potential drugs. That is, they include compounds which have initial indications that they will have potential clinical use or activity.

The term "supplemental crystal" refers to a second, additional, crystal complexed with a further, different LXR β ligand.

The term "standard ligand" refers to a known, characterised, ligand.

STRUCTURE BASED DESIGN OF LXR LIGANDS

The present invention elucidates the structure of the ligand-binding cavity of LXR β . Knowledge of the structure of this cavity has utility in the design of structurally novel

LXR β ligands and in the design of non-obvious analogues of known LXR β ligands with improved properties. These enhanced properties include one or more of the following: (1) higher affinity, (2) improved selectivity for LXR β vs. related nuclear hormone receptors and/or (3) a designed degree of efficacy (agonism vs. partial agonism vs. antagonism). Without knowledge of the LXR β structure, modifications to produce ligands with enhanced properties and a reasonable likelihood of success would not be available to those skilled in the art. The LXR β structure also has utility in the discovery of new, structurally novel classes of LXR β ligands. Electronic screening of large, structurally diverse compound libraries such as the Available Chemical Directory (ACD) will identify new structural classes of LXR β ligands which will bind to the 3-dimensional structure of the LXR β . Additionally the LXR β structure allows for "reverse-engineering" or "*de novo* design" of compounds to bind to LXR β .

(1) **Enhanced Affinity**

The present invention has revealed the size and shape of the interior binding cavity for representative LXR β ligands T0901317 and GW-3965. The sizes and shapes of the cavities were delineated using the PASS program ("Fast Prediction and Visualization of Protein Binding Pockets With PASS"; G.P. Brady, Jr. and P.F.W. Stouten; J. Comp.-Aided Mol. Design, 14: 383-401, 2000). The interior binding cavity of LXR β /T0901317 complex is shown in **Figure 6** (left) and has the dimensions of 13.1 x 9.2 x 7.5 Å along the first, second, and third principle moments of inertia respectively. The interior binding cavity of LXR β /GW-3965 complex is shown in **Figure 6** (right) and has the dimensions of 17.0 x 11.9 x 8.0 Å along the first, second, and third principle moments of inertia respectively. In addition, this structure reveals a narrow "water-channel" adjacent to the cavity occupied by T0901317 and GW-3965.

Ligands which occupy as much of the interior binding cavities including the unoccupied "water-channels" as revealed by the LXR β /T0901317 and LXR β /GW-3965 complexes without sterically colliding with the receptor will provide ligands with higher affinity than either T0901317 or GW-3965.

The present invention has also revealed the presence of a histidine residue (His-435) which forms a very strong hydrogen bond with the acidic hydroxyl group of the ligand TO901317 [Ne – OC(CF₃)₂Ar) distance = 2.6 Å]. In addition, the sulfonyl oxygen atom of ligand TO901317 forms a weak hydrogen bond to the Ser-278 (Og – O=S=O distance = 4.1 Å). New ligands which preserve the strong hydrogen bond by an appropriately placed acidic hydrogen atom to interact with the Ne atom of His-435 and in addition place a hydrogen bond donating group closer to the Og atom of Ser-278 will show enhanced affinity for LXRβ relative to TO901317.

The present invention also reveals that there are a number of unsatisfied hydrogen bond partners in the ligand binding cavity (see **Figure 7**). These include the backbone carbonyl group of Phe-271 and the sidechain Og atoms of Thr-272 and Thr-316. Introduction of appropriately positioned hydrogen bond donating substituents on the ligand which form strong hydrogen bonds to one or more of these three hydrogen bond accepting groups in the receptor binding cavity will serve to enhance affinity.

The ligands produced in accordance with the invention bind more effectively to the LXRβ than TO901317. The ligand may bind with twice the binding affinity of TO901317, preferably three times the affinity, and most preferably ten or more times the affinity.

Preferably, the ligand produced in accordance with the invention occupies as much of the interior binding cavities of LXRβ as revealed by the LXRβ/TO901317 and LXRβ/GW-3965 complexes without perturbing the remainder of the LXRβ structure.

Preferably, the ligand produced in accordance with the invention also forms a hydrogen bond with the Ne atom of His-435 and at least one additional hydrogen bond to either Phe-271 (backbone carbonyl group), Thr-272 (Og), Ser-278 (Og), or Thr-316 (Og) of LXRβ without perturbing the remainder of the LXRβ structure.

(2) Improved Selectivity

The LXR β receptor is very closely related to the LXR α and relatively closely related to the RXR, PXR, FXR, PPAR receptors. The RXR, PXR, FXR, PPAR receptors differ significantly in their primary sequence and slightly in their tertiary structure. As a consequence of these receptor differences, ligands may bind with different affinity to these four receptors.

The closest amino acid difference between LXR α and LXR β in the vicinity of the bound ligand is Ala-294(a)/Thr-308(b). This is in turn next to Met-298(a)/312(b) which directly lines the binding cavity. Rotation about the C₃ sidechain of to Met-298(a) is more facile in LXR α than in LXR β due to the presence of the smaller Ala-294(a) residue. Therefore substituents from the ligand which push on Met-298(a) will afford ligand that are selective for LXR α over LXR β .

Furthermore, a detailed understanding of the different receptors enables the different behaviour of a compound in different tissues to be understood, for example the selective liver X receptor modulators (SLXRM) on the tissue in which it is active. LXR α and LXR β have different tissue distributions and therefore ligands which display LXR isoform binding selectivity will also display tissue selectivity.

The present invention provides new ligands which exploit these differences by positioning ligand substituents in close proximity to one or more amino acid residue that differ between LXR β and RXR, PXR, FXR, PPAR.

The ligands produced in accordance with the invention bind more effectively to the LXR β receptor than to the RXR, PXR, FXR, or PPAR receptor. The selectivity of the binding to the LXR β receptor may be tenfold, more preferably one hundred-fold, and most preferably greater than one thousand-fold.

(3) **Modulation of Efficacy**

This invention provides an understanding of the differences between LXR β agonist and antagonist binding and therefore a means to design LXR β ligands with the desired degree

of efficacy. An examination of the differences between the ERa/estradiol (agonist; PDB accession code: 1ERE) and ERb/raloxifene (agonist; PDB accession code: 1ERR) complexes reveals a large movement in Helix-12. H12 adopts an "agonistic" conformation defined by the structure of the ERa/estradiol complex and an "antagonistic" conformation defined by the structure of the ERb/raloxifene complex. These two conformations are in thermodynamic equilibrium. When the ER is complexed with a full agonist, such as estradiol, the equilibrium lies far in the direction of the "agonistic" conformation. In contrast, while when complexed with an antagonist, the equilibrium is pushed in the direction of the "antagonistic" conformation. In the case of raloxifene ER ligand, the bulky side-chain collides with H12 in its agonistic conformation, thereby driving the equilibrium in the antagonistic direction. By introduction of progressively shorter side chains in raloxifene, the equilibrium will be gradually shifted back towards the agonist conformation. By analogy, replacement of one of the fluorine atoms of the hexafluoroisopropanol group of TO901317 will sterically collide with H12 in LXR β . Thus, this invention provides a means of developing ligands with the desired degree of efficacy (agonist, partial agonist, or antagonist).

In particular, the importance of H12 has been determined as playing a central role in determining the efficacy (agonism vs. antagonism) of a ligand. Thus, ligands which are able to bind to and/or alter the conformation of H12 are of particular importance when designing a ligand or assessing the binding of a ligand, for the LXR β receptor.

Additionally, it has been found that at least the majority of such receptor proteins when activated by binding to an agonist ligand are in the form a dimer (Khorasanizadeh S, Rastinejad F. 2001). Such dimerization leads to a potential route for disruption. Disruptions of this type can be used to predict antagonism or to produce antagonists. Disruptions may take the form of ligand binding which alters the conformation of the helices that comprise the dimerization interface or direct binding to the dimerization interface which then inhibits dimerization.

Further, the orientation of the ligand may be keyed to the receptor, in the dimeric or monomeric form. Furthermore, using the crystals of the present invention, the influence of

ligand binding to the LDB on the receptor conformation can now be shown to have influences on the behaviour of the receptor since it may disrupt the binding of co-activator, co-repressor, or heat-shock proteins. Previously, such predictions could not be made.

PRODUCTION OF LIVER X RECEPTOR β CRYSTALS AND THEIR APPLICATION

The present inventors have been able to isolate, differentiate and produce crystals for the liver X receptor β .

The crystal may be produced from a sequence comprising at least 250 amino acids, and preferably at least 200 amino acids of LXR β . More preferably, the sequence comprises at least a portion of the ligand-binding domain of LXR β . Alternatively, the sequence comprises the whole ligand-binding domain of LXR β .

Advantageously, the crystals have a resolution determined by X-ray crystallography of less than 3.6 Å and most preferably less than 2.9 Å.

The production of such crystals has enabled the three dimensional structure of the ligand binding domain of LXR β to be mapped. Use of such crystals in conjunction with the map enables a better understanding of how T0901317, GW3965 and other ligands bind to LXR β with precision. This technique can also enable the design of receptor selective LXR β agonists and antagonists since now the precise differences in the binding sites between LXR β and the closely related LXR α .

Crystals of the LXR β ligand-binding domain can be used as models in methods for the design of synthetic compounds intended to bind to the receptor. Such models show why very slight differences in chemical moieties of a ligand potentially have widely varying binding affinities. Hence, the three dimensional structure of the ligand binding domain can be used as a pharmaceutical model for compounds which bind to Liver X receptors.

Embodiments of the invention will now be described in more detail, by way of example, with reference to the accompanying drawing.

FIGURE LEGENDS

Figure 1. Cartoon view of the LXR β receptor with labeled helices.

Figure 2 shows representative portions of a 2.4Å resolution SigmaA weighted 2 **F_{obs}-F_{calc}** map where **F_{obs}** are the observed and **F_{calc}** are the calculated structure-factor amplitudes and 2**F_{obs}-F_{calc}** is the difference Fourier synthesis electron density map in which model error is reduced and electron density at the chosen contour (mesh diagram) approximates the molecular surface for the LXR β /GW3965 complex. The structure of GW3965 (tube diagram) is fitted to the experimental electron density (mesh diagram).

Figure 3. Superposition of the LXR β /T0901317 (carbons black) and the LXR β /GW3965 (carbons light grey) complexes reveal dramatic changes in the ligand-binding pocket.

Figure 4. Residues that are within hydrogen bond distance or van der Waals (4.2 Å) distance to the ligand are labeled. Dashed lines indicate hydrogen bonds and lines indicate Van der Waals interactions. These interactions are shown in (a) for the LXR β /T0901317 complex, and in (b) for the LXR β /GW3965.

Figure 5(a). Full length natural sequence of human LXR β .

Figure 5(b). The crystallized protein sequence with the first four non-LXR β residues gshn and the remaining 213-416 originating from human LXR β .

Figure 6. Interior binding cavity of the LXR β /T0901317 complex (left) and LXR β /GW-3965 (right). The Ca-trace of the protein is represented by solid line. The structure of the ligand T0901317 and GW-3965 ligands are represented by a ball-and-stick diagram. The binding cavity is represented by a transparent surface which is filled by PASS probe spheres (dots).

Figure 7. Unsatisfied hydrogen bonding partners (backbone carbonyl groups of Phe-266, Phe-271, Met-312 and side-chain hydroxyl groups of Thr-272, Thr-316) as revealed by the LXR β /T0901317 complex. Structure of T0901317 is represented by a capped sticks figure surrounded by the interior binding cavity of the receptor (transparent surface). Key amino acid residues are represented by labeled capped-stick. Hydrogen bonding accepting sites on the surface of the receptor binding cavity are represented by solid surfaces.

DNA construction work

The human LXR β sequence is publicly available with accession number P55055 (SwissProt.) (Shinar, D.M. et al. (1994)). A construct spanning Gly213-Glu461 with the addition of an N-terminal 6xHis tag was used in the present work. The His-tag was designed to be cleavable using thrombin.

Protein production

The protein was expressed in *Escherichia coli* BL21 StarTM (DE3) cells (Invitrogen) using the pET28a expression system. Fermentation was carried out in batch culture (2xLB medium, 22°C) and expression of the recombinant protein was induced by the addition of 0.55mM IPTG (isopropyl- β -D-thiogalactoside) at OD₆₀₀=5.0. After 4h of induction the cells were harvested by centrifugation. The cell pellet was resuspended and washed once with buffer (20 mM HEPES pH 8.0, 100 mM KCl, 10% glycerol and 2.5 mM monothioglycerol). Final cell pellet was frozen at -70°C.

40g cells were lysed by glass beadbeater (BioSpec Products, Inc.) in extract buffer containing 50 mM Tris, pH8.8, 250 mM NaCl, 10% glycerol and 1 mM PMSF. Soluble protein extract were collected by centrifugation at 11000 rpm, 20 min in Sorvall RC-5B centrifuge (Du Pont-instrument AB), GSA rotor.

Protein purification

Crude LXR β was eluted from 25 ml Talon by 20 mM Tris, pH8.0, 100 mM imidazole. Further purification was achieved using anion-exchange chromatography (5 ml Hitrap Q FF ion exchange column, Amersham Bioscience), and applying a gradient from 0 to 250

mM NaCl, pH8.0, eluted LXR β . After thrombin cleavage, the final LXR β (6-7 mg) fraction was obtained by running 4% acryl amide native gel electrophoresis in Tris-Epps buffer system.

Protein quality analysis

To elucidate the homogeneity of LXR β , throughout the purification samples were collected and run on SDS and native PAGE gels (Phast, Amersham Biosciences, Sweden). Reverse phase HPLC runs were performed on a Waters HPLC system (Waters, USA) at denaturing conditions. Typically, 100 ml sample was acidified by addition of 10% acidic acid (final concentration). A sample was injected and eluted in a 25-75% acetonitrile-water gradient in 0.1% trifluoroacetic acid at 1 ml/min. The method proved to be very useful to reveal problems with ligand binding and LXR β stability and for determine the concentration and LXR β -ligand ratio.

Crystallization and data collection

Crystallization was carried out using the hanging drop vapour-diffusion technique. Both LXR β -GW9365 and LXR β -T0901317 crystals were grown from buffer containing 8.5% iso-propanol, 17% PEG 4000, 85 mM HEPES, pH7.5, and 15% Glycerol at room temperature. The first LXR β /T0901317 crystals formed in the P6122 space group, with $a=b=58.7, c=293.8$ and diffracted to better than 3 Å. In the same drops another crystal form was later detected belonging to the P212121 space group. Before data collection, crystals were flash-frozen in the 100 K nitrogen gas stream of an Oxford cryostream700. Data was either collected with an MAR345 image plate detector using X-rays from a Rigaku H3R rotating anode generator + Osmic Confocal Max-Fluxä optics or with a ADSC Q4R CCD at Experimental Station ID14-4 at ESRF. The observed reflections were reduced, merged and scaled with MOSFLM, and Scala in the CCP4 package.

Structure determination and refinement

The structure was determined by molecular replacement methods with the CCP4 AmoRe program (Acta. Cryst. D50 (1994), pages 760-763), using an LXR β homology model based on a thyroid hormone receptorb structures (Protein Databank Accession Code 1NAX). A publicly available structure such as 1bsx.pdb, from the Protein Data Bank, could also have been used to create the model. The molecular replacement was done on the first 3 Å data of LXR β /T0901317 crystallized in P6122 and revealed one monomer per asymmetric unit. The crystal packing along one of the 2-folds revealed that the protein formed a tight homodimer, which allowed us to use the homodimer to search the second crystal form P212121 that gave 2 homodimers in the asymmetric unit. Electron densities for the T0901317 ligand confirmed the solutions of the molecular replacement. Model building was done with O and refinement initially with CNX and later with the CCP4 Refmac program and manual rebuilding. The four monomer complexes where treated as single TLS groups in Refmac which gave more interpretable electron density maps and improved the R-factors substantially.

Table 1. Summary of data collection, processing and refinement.

Complex	LxR β /T0901317	LxR β /GW3965
Data collection		
Source	In house	ID14 EH4 ESRF
Space group	P212121	P212121
Unit cell parameters		
a	58.7	58.7
b	103.3	98.9
c	176.0	175.8
Resolution	2.8 Å (2.8-2.95Å)	2.4 (2.4-2.53)
Observations		
Unique	27153	37733
Total	92460	1129438
Completeness (%)	99.9 (99.7)	98.5(95.4)
<I> / <s(I)>	7.6 (1.9)	8.8(3.5)
Rsym %	8.4 (40.2)	5.0(21.8)
Refinement		
Rwork	19.5 (27.9)	20.7(21.8)
Rfree	26.2 (34.8)	26.3(29.6)
Number of atoms	7782	7673
R.m.s deviation		
Bonds (Å)	0.016	0.016
Angles (°)	1.49	1.36
Average B-factor (Å ²)	24.3	23.1

References

- Alberti, S., G Schuster, *et al.* (2001), "Hepatic cholesterol metabolism and resistance to dietary cholesterol in LXRbeta-deficient mice", *J. Clin. Invest.*, **107**(5): 565-73.
- Apfel, R., D. Benbrook, *et al.* (1994), "A novel orphan receptor specific for a subset of thyroid hormone-responsive elements and its interaction with the retinoid/thyroid hormone receptor subfamily", *Molecular & Cellular Biology*, **14**(10): 7025-35.
- Chiang, J.Y., R. Kimmel, *et al.* (2001), "Regulation of cholesterol 7alpha-hydroxylase gene (CYP7A1) transcription by the liver orphan receptor (LXRalpha)", *Gene*, **262**(1-2): 257-265.
- Collins, J.L., A.M. Fivush, *et al.* (2002), "Identification of a Nonsteroidal Liver X Receptor Agonist through Parallel Array Synthesis of Tertiary Amines", *J. Med. Chem.*, **45**(10): 1963-6.
- Costet, P., Y. Luo, *et al.* (2000), "Sterol-dependent transactivation of the ABC1 promoter by the liver X receptor/retinoid X receptor", *J. Biol. Chem.*, **275**(36): 28240-5.
- Janowski, B.A., M.J. Grogan, *et al.* (1999), "Structural requirements of ligands for the oxysterol liver X receptors LXRalpha and LXRbeta", *Proceedings of the National Academy of Sciences of the United States of America*, **96**(1): 266-71.
- Janowski, B.A., P.J. Willy, *et al.* (1996), "An oxysterol signalling pathway mediated by the nuclear receptor LXRalpha", *Nature*, **383**(6602): 728-31.
- Khorasanizadeh, S. and F. Rastinejad (2001), "Nuclear-receptor interactions on DNA-response elements", *Trends Biochem. Sci.*, **26**(6): 384-90.
- Leers, J., E. Treuter, *et al.* (1998), "Mechanistic principles in NR box-dependent interaction between nuclear hormone receptors and the coactivator TIF2", *Mol Cell Biol.*, **18**(10): 6001-13.
- Lehmann, J.M., S.A. Kliewer, *et al.* (1997), "Activation of the nuclear receptor LXR by oxysterols defines a new hormone response pathway", *Journal of Biological Chemistry*, **272**(6): 3137-40.
- Menke, J.G., K.L. Macnaul, *et al.* (2002), "A novel liver X receptor agonist establishes species differences in the regulation of cholesterol 7alpha-hydroxylase (CYP7a)", *Endocrinology*, **143**(7): 2548-58.

- Peet, D.J. B.A. Janowski, *et al.* (1998), "The LXRs: a new class of oxysterol receptors. [Review] [37 refs]", *Current Opinion in Genetics & Development*, **8**(5): 571-5.
- Peet, D.J., S.D. Turley, *et al.* (1998), "Cholesterol and bile acid metabolism are impaired in mice lacking the nuclear oxysterol receptor LXRalpha", *Cell*, **93**(5): 693-704.
- Repa, J.J., G. Liang, *et al.* (2000), "Regulation of mouse sterol regulatory element-binding protein-1c gene (SREBP-1c) by oxysterol receptors, LXRalpha and LXRbeta", *Genes Dev*, **14**(22): 2819-2830.
- Repa, J.J., S.D. Turley, *et al.* (2000), "Regulation of absorption and ABC1-mediated efflux of cholesterol by RXR heterodimers [see comments]", *Science*, **289**(5484): 1524-9.
- Schultz, J.R., H. Tu, *et al.* (2000), "Role of LXRs in control of lipogenesis", *Genes Dev.*, **14**(22): 2831-2838.
- Schwartz, K., R.M. Lawn, *et al.* (2000), "ABC1 gene expression and ApoA-I-mediated cholesterol efflux are regulated by LXR", *Biochemical & Biophysical Research Communications*, **274**(3): 794-802.
- Shinar, D.M., N. Endo, *et al.* (1994), "NER, a new member of the gene family encoding the human steroid hormone nuclear receptor", *Gene*, **147**(2): 273-6.
- Song, C., J.M. Kokontis, *et al.* (1994), "Ubiquitous receptor: a receptor that modulates gene activation by retinoic acid and thyroid hormone receptors", *Proceedings of the National Academy of Sciences of the United States of America*, **91**(23): 10809-13.
- Teboul, M. E. Enmark, *et al.* (1995), "OR-1, a member of the nuclear receptor superfamily that interacts with the 9-cis-retinoic acid receptor", *Proceedings of the National Academy of Sciences of the United States of America*, **92**(6): 2096-100.
- Venkateswaran, A., B.A. Laffitte, *et al.* (2000), "Control of cellular cholesterol efflux by the nuclear oxysterol receptor LXRalpha", *Proc. Natl. Acad. Sci. USA*, **97**(22): 12097-12102.
- Venkateswaran, A., J.J. Repa, *et al.* (2000), "Human white/murine ABC8 mRNA levels are highly induced in lipid-loaded macrophages. A transcriptional role for specific oxysterols", *J. Biol. Chem.*, **275**(19): 14700-7.
- Willy, P.J. and D.J. Mangelsdorf (1997), "Unique requirements for retinoid-dependent transcriptional activation by the orphan receptor LXR", *Genes & Development*, **11**(3): 289-98.

Willy, P.J. K. Umesono, *et al.* (1995), "LXR, a nuclear receptor that defines a distinct retinoid response pathway", *Genes & Development*, **9**(9): 1033-45.

REMARK ***** CONFIDENTIAL *****
REMARK THESE ATOMIC COORDINATES AND/OR STRUCTURE FACTORS ARE
PROPRIETARY
REMARK INFORMATION BELONGING TO KARO BIO AB ,STOCKHOLM,
SWEDEN.
REMARK THEY ARE TO BE HELD IN CONFIDENCE AND ARE NOT TO BE USED
FOR
REMARK PURPOSES OF EXTERNAL PUBLICATION OR REDISTRIBUTED TO
ANY
REMARK SOURCE OUTSIDE OF KARO BIO WITHOUT AUTHORIZATION.
REMARK *****
REMARK
TITLE HUMAN LXR BETA HORMONE RECEPTOR /
TITLE 2 KB043546/WAY207380/GW3965 COMPLEX
REMARK
REMARK
REMARK ATOMIC COORDINATES OF A CRYSTAL STRUCTURE
REMARK
REMARK DEPOSITOR: MATHIAS FARNEGARDH
(MATHIAS.FARNEGARDH@KAROBIO.SE)
REMARK DEPOSITION DATE 5-SEP-2002
REMARK
REMARK THIS FILE REPLACE lxxb_KB43546_b1.pdb (11-MAR 2002)
REMARK
REMARK THE ATOMIC COORDINATES AND/OR STRUCTURE FACTORS IN
THIS FILE ARE THE
REMARK EXPERIMENTAL RESULTS OF:
REMARK
REMARK MATHIAS FARNEGARDH, KARO BIO AB
REMARK NOVUM, 141 57 HUDDINGE, SWEDEN
REMARK
REMARK THIS ENTRY CONTAINS THE COMPLETE CONTENT OF THE
ASYMETRIC UNIT
REMARK THAT COULD BE BUILT INTO INTERPRETABLE ELECTRON
DENSITIES
REMARK IT CONTAINS 4 INDEPENDENTLY REFINED PROTEIN MONOMERS
REMARK CHAIN A 220-242, 247-253, 259-460 (HIS460 MODELLED AS ALA)
REMARK A500 IS THE LIGAND
REMARK CHAIN B 220-460 (HIS460 MODELLED AS ALA) B500 IS THE LIGAND
REMARK CHAIN C 220-252, 264-438 THERE ARE WEAK DENSITIES
SUGGESTING A LOW
REMARK OCCUPANCY OF THE LIGAND. EXPERIMENTS TO ESTIMATE THE
OCCUPANCY
REMARK SUGGESTS AN OCCUPANCY AROUND 0.5-0.6. THERE ARE ALSO
SOME WEAK BUT
REMARK UNINTERPRETABLE DENSITY IN THE REGION WHERE H12 SITS IN
THE A B AND
REMARK D CHAINS.

REMARK CHAIN D 220-244, 248-254, 263-444, 448-460 (HIS460 MODELLED AS ALA)

REMARK D500 IS THE LIGAND

REMARK THE PROTEIN CRYSTALLIZED CONTAIN RESIDUES 213-461, THE GAPS IN THE

REMARK STRUCTURE ARE DUE TO UNINTERPRETABLE ELECTRON DENSITIES IN THESE

REMARK PARTICULAR REGIONS

HEADER LXR B+KB043546/WAY207380/GW3965 05-SEP-02 XXXX

COMPND MOL_ID: 1;

COMPND 2 MOLECULE: LIVER X RECEPTOR BETA;

COMPND 3 CHAIN: A, B, C, D;

COMPND 4 FRAGMENT: LIGAND BINDING DOMAIN;

COMPND 5 SYNONYM: LXR B;

REMARK 3

REMARK 3 REFINEMENT.

REMARK 3 PROGRAM : REFMAC 5.1.19

REMARK 3 AUTHORS : MURSHUDOV,VAGIN,DODSON

REMARK 3

REMARK 3 REFINEMENT TARGET : MAXIMUM LIKELIHOOD

REMARK 3

REMARK 3 DATA USED IN REFINEMENT.

REMARK 3 RESOLUTION RANGE HIGH (ANGSTROMS) : 2.40

REMARK 3 RESOLUTION RANGE LOW (ANGSTROMS) : 87.71

REMARK 3 DATA CUTOFF (SIGMA(F)) : NONE

REMARK 3 COMPLETENESS FOR RANGE (%) : 98.41

REMARK 3 NUMBER OF REFLECTIONS : 38254

REMARK 3

REMARK 3 FIT TO DATA USED IN REFINEMENT.

REMARK 3 CROSS-VALIDATION METHOD : THROUGHOUT

REMARK 3 FREE R VALUE TEST SET SELECTION : RANDOM

REMARK 3 R VALUE (WORKING + TEST SET) : 0.20934

REMARK 3 R VALUE (WORKING SET) : 0.20655

REMARK 3 FREE R VALUE : 0.26237

REMARK 3 FREE R VALUE TEST SET SIZE (%) : 5.0

REMARK 3 FREE R VALUE TEST SET COUNT : 2021

REMARK 3

REMARK 3 FIT IN THE HIGHEST RESOLUTION BIN.

REMARK 3 TOTAL NUMBER OF BINS USED : 20

REMARK 3 BIN RESOLUTION RANGE HIGH : 2.400

REMARK 3 BIN RESOLUTION RANGE LOW : 2.462

REMARK 3 REFLECTION IN BIN (WORKING SET) : 2689

REMARK 3 BIN R VALUE (WORKING SET) : 0.218

REMARK 3 BIN FREE R VALUE SET COUNT : 140

REMARK 3 BIN FREE R VALUE : 0.296

REMARK 3

REMARK 3 NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.

REMARK 3 ALL ATOMS : 7673

REMARK 3
REMARK 3 B VALUES.
REMARK 3 FROM WILSON PLOT (A**2) : NULL
REMARK 3 MEAN B VALUE (OVERALL, A**2) : 23.076
REMARK 3 OVERALL ANISOTROPIC B VALUE.
REMARK 3 B11 (A**2) : -0.75
REMARK 3 B22 (A**2) : 1.03
REMARK 3 B33 (A**2) : -0.28
REMARK 3 B12 (A**2) : 0.00
REMARK 3 B13 (A**2) : 0.00
REMARK 3 B23 (A**2) : 0.00
REMARK 3
REMARK 3 ESTIMATED OVERALL COORDINATE ERROR.
REMARK 3 ESU BASED ON R VALUE (A): 0.511
REMARK 3 ESU BASED ON FREE R VALUE (A): 0.288
REMARK 3 ESU BASED ON MAXIMUM LIKELIHOOD (A): 0.208
REMARK 3 ESU FOR B VALUES BASED ON MAXIMUM LIKELIHOOD (A**2):
8.796
REMARK 3
REMARK 3 CORRELATION COEFFICIENTS.
REMARK 3 CORRELATION COEFFICIENT FO-FC : 0.939
REMARK 3 CORRELATION COEFFICIENT FO-FC FREE : 0.901
REMARK 3
REMARK 3 RMS DEVIATIONS FROM IDEAL VALUES COUNT RMS
WEIGHT
REMARK 3 BOND LENGTHS REFINED ATOMS (A): 7652 ; 0.016 ; 0.022
REMARK 3 BOND LENGTHS OTHERS (A): 7154 ; 0.003 ; 0.020
REMARK 3 BOND ANGLES REFINED ATOMS (DEGREES): 10342 ; 1.363 ; 1.979
REMARK 3 BOND ANGLES OTHERS (DEGREES): 16577 ; 0.924 ; 3.000
REMARK 3 TORSION ANGLES, PERIOD 1 (DEGREES): 898 ; 5.477 ; 5.000
REMARK 3 CHIRAL-CENTER RESTRAINTS (A**3): 1164 ; 0.083 ; 0.200
REMARK 3 GENERAL PLANES REFINED ATOMS (A): 8318 ; 0.005 ; 0.020
REMARK 3 GENERAL PLANES OTHERS (A): 1612 ; 0.004 ; 0.020
REMARK 3 NON-BONDED CONTACTS REFINED ATOMS (A): 1763 ; 0.203 ;
0.200
REMARK 3 NON-BONDED CONTACTS OTHERS (A): 8183 ; 0.216 ; 0.200
REMARK 3 NON-BONDED TORSION OTHERS (A): 4673 ; 0.086 ; 0.200
REMARK 3 H-BOND (X...Y) REFINED ATOMS (A): 186 ; 0.209 ; 0.200
REMARK 3 SYMMETRY VDW REFINED ATOMS (A): 22 ; 0.174 ; 0.200
REMARK 3 SYMMETRY VDW OTHERS (A): 98 ; 0.237 ; 0.200
REMARK 3 SYMMETRY H-BOND REFINED ATOMS (A): 8 ; 0.142 ; 0.200
REMARK 3
REMARK 3 ISOTROPIC THERMAL FACTOR RESTRAINTS. COUNT RMS
WEIGHT
REMARK 3 MAIN-CHAIN BOND REFINED ATOMS (A**2): 4554 ; 0.534 ; 1.500
REMARK 3 MAIN-CHAIN ANGLE REFINED ATOMS (A**2): 7368 ; 1.039 ; 2.000
REMARK 3 SIDE-CHAIN BOND REFINED ATOMS (A**2): 3098 ; 1.749 ; 3.000
REMARK 3 SIDE-CHAIN ANGLE REFINED ATOMS (A**2): 2974 ; 2.997 ; 4.500

REMARK 3
 REMARK 3 NCS RESTRAINTS STATISTICS
 REMARK 3 NUMBER OF NCS GROUPS : NULL
 REMARK 3
 REMARK 3
 REMARK 3 TLS DETAILS
 REMARK 3 NUMBER OF TLS GROUPS : NULL
 REMARK 3
 REMARK 3
 REMARK 3 BULK SOLVENT MODELLING.
 REMARK 3 METHOD USED : BABINET MODEL WITH MASK
 REMARK 3 PARAMETERS FOR MASK CALCULATION
 REMARK 3 VDW PROBE RADIUS : 1.40
 REMARK 3 ION PROBE RADIUS : 0.80
 REMARK 3 SHRINKAGE RADIUS : 0.80
 REMARK 3
 REMARK 3 OTHER REFINEMENT REMARKS:
 REMARK 3 HYDROGENS HAVE BEEN ADDED IN THE RIDING POSITIONS
 REMARK 3
 LINK SER A 242 PRO A 247 gap
 LINK PRO A 253 ALA A 259 gap
 LINK TRP C 252 ARG C 264 gap
 LINK SER D 244 LYS D 248 gap
 LINK LEU D 254 ALA D 263 gap
 LINK LEU D 444 LYS D 448 gap
 CRYST1 58.717 98.929 175.815 90.00 90.00 90.00 P 21 21 21
 SCALE1 0.017031 0.000000 0.000000 0.000000
 SCALE2 0.000000 0.010108 0.000000 0.000000
 SCALE3 0.000000 0.000000 0.005688 0.000000
 ATOM 1 N LEU A 220 25.060 40.930 59.913 1.00 15.13 N
 ATOM 3 CA LEU A 220 26.289 40.159 60.353 1.00 15.45 C
 ATOM 5 CB LEU A 220 27.291 39.950 59.207 1.00 15.67 C
 ATOM 8 CG LEU A 220 27.116 38.849 58.140 1.00 17.66 C
 ATOM 10 CD1 LEU A 220 28.185 38.981 57.007 1.00 17.73 C
 ATOM 14 CD2 LEU A 220 27.141 37.466 58.708 1.00 17.30 C
 ATOM 18 C LEU A 220 26.986 40.905 61.486 1.00 14.86 C
 ATOM 19 O LEU A 220 27.349 42.061 61.313 1.00 13.74 O
 ATOM 22 N THR A 221 27.168 40.237 62.630 1.00 14.79 N
 ATOM 24 CA THR A 221 27.969 40.775 63.735 1.00 15.28 C
 ATOM 26 CB THR A 221 27.770 39.961 65.068 1.00 14.97 C
 ATOM 28 OG1 THR A 221 28.449 38.717 64.998 1.00 15.18 O
 ATOM 30 CG2 THR A 221 26.346 39.558 65.290 1.00 16.01 C
 ATOM 34 C THR A 221 29.479 40.828 63.378 1.00 15.09 C
 ATOM 35 O THR A 221 29.945 40.137 62.487 1.00 14.81 O
 ATOM 36 N ALA A 222 30.220 41.648 64.105 1.00 15.21 N
 ATOM 38 CA ALA A 222 31.673 41.759 63.960 1.00 15.24 C
 ATOM 40 CB ALA A 222 32.183 42.803 64.908 1.00 15.12 C
 ATOM 44 C ALA A 222 32.421 40.431 64.177 1.00 15.76 C

ATOM	45	O	ALA A 222	33.417	40.152	63.507	1.00	16.04	O
ATOM	46	N	ALA A 223	31.952	39.609	65.108	1.00	15.81	N
ATOM	48	CA	ALA A 223	32.576	38.301	65.341	1.00	15.78	C
ATOM	50	CB	ALA A 223	31.954	37.600	66.563	1.00	15.45	C
ATOM	54	C	ALA A 223	32.422	37.402	64.114	1.00	16.06	C
ATOM	55	O	ALA A 223	33.327	36.657	63.773	1.00	16.18	O
ATOM	56	N	GLN A 224	31.243	37.424	63.507	1.00	15.96	N
ATOM	58	CA	GLN A 224	30.985	36.638	62.309	1.00	16.40	C
ATOM	60	CB	GLN A 224	29.479	36.583	61.976	1.00	16.76	C
ATOM	63	CG	GLN A 224	28.626	35.831	62.969	1.00	16.46	C
ATOM	66	CD	GLN A 224	27.129	35.920	62.618	1.00	17.67	C
ATOM	67	OE1	GLN A 224	26.636	36.996	62.252	1.00	16.55	O
ATOM	68	NE2	GLN A 224	26.411	34.785	62.731	1.00	14.22	N
ATOM	71	C	GLN A 224	31.741	37.181	61.106	1.00	15.81	C
ATOM	72	O	GLN A 224	32.261	36.418	60.344	1.00	15.71	O
ATOM	73	N	GLU A 225	31.816	38.490	60.933	1.00	16.23	N
ATOM	75	CA	GLU A 225	32.632	39.039	59.846	1.00	17.17	C
ATOM	77	CB	GLU A 225	32.440	40.554	59.707	1.00	17.63	C
ATOM	80	CG	GLU A 225	31.152	40.907	58.966	1.00	21.74	C
ATOM	83	CD	GLU A 225	31.003	42.396	58.650	1.00	27.29	C
ATOM	84	OE1	GLU A 225	32.021	42.978	58.212	1.00	32.71	O
ATOM	85	OE2	GLU A 225	29.883	42.995	58.837	1.00	28.94	O
ATOM	86	C	GLU A 225	34.116	38.668	60.044	1.00	16.92	C
ATOM	87	O	GLU A 225	34.793	38.247	59.108	1.00	15.82	O
ATOM	88	N	LEU A 226	34.604	38.786	61.279	1.00	17.48	N
ATOM	90	CA	LEU A 226	35.961	38.343	61.622	1.00	17.76	C
ATOM	92	CB	LEU A 226	36.204	38.469	63.124	1.00	17.63	C
ATOM	95	CG	LEU A 226	37.549	37.979	63.657	1.00	17.25	C
ATOM	97	CD1	LEU A 226	38.661	38.747	63.038	1.00	17.37	C
ATOM	101	CD2	LEU A 226	37.599	38.118	65.172	1.00	19.01	C
ATOM	105	C	LEU A 226	36.238	36.910	61.164	1.00	18.47	C
ATOM	106	O	LEU A 226	37.164	36.666	60.408	1.00	17.08	O
ATOM	107	N	MET A 227	35.391	35.991	61.610	1.00	19.43	N
ATOM	109	CA	MET A 227	35.537	34.586	61.306	1.00	21.31	C
ATOM	111	CB	MET A 227	34.540	33.752	62.145	1.00	22.11	C
ATOM	114	CG	MET A 227	33.506	32.925	61.415	1.00	28.34	C
ATOM	117	SD	MET A 227	32.334	31.905	62.531	1.00	38.91	S
ATOM	118	CE	MET A 227	32.594	32.703	64.096	1.00	37.78	C
ATOM	122	C	MET A 227	35.471	34.293	59.792	1.00	20.86	C
ATOM	123	O	MET A 227	36.271	33.518	59.281	1.00	20.78	O
ATOM	124	N	ILE A 228	34.561	34.928	59.069	1.00	20.14	N
ATOM	126	CA	ILE A 228	34.417	34.632	57.652	1.00	19.44	C
ATOM	128	CB	ILE A 228	33.183	35.310	57.083	1.00	19.42	C
ATOM	130	CG1	ILE A 228	31.921	34.621	57.618	1.00	19.46	C
ATOM	133	CD1	ILE A 228	30.696	35.544	57.670	1.00	19.93	C
ATOM	137	CG2	ILE A 228	33.225	35.310	55.549	1.00	19.80	C
ATOM	141	C	ILE A 228	35.663	35.106	56.928	1.00	19.44	C
ATOM	142	O	ILE A 228	36.234	34.375	56.131	1.00	18.34	O

ATOM	143	N	GLN A 229	36.078	36.332	57.238	1.00	19.45	N
ATOM	145	CA	GLN A 229	37.226	36.954	56.618	1.00	19.60	C
ATOM	147	CB	GLN A 229	37.392	38.404	57.120	1.00	19.49	C
ATOM	150	CG	GLN A 229	36.403	39.387	56.506	1.00	20.13	C
ATOM	153	CD	GLN A 229	36.463	40.823	57.104	1.00	24.05	C
ATOM	154	OE1	GLN A 229	35.688	41.697	56.683	1.00	25.94	O
ATOM	155	NE2	GLN A 229	37.375	41.065	58.057	1.00	21.74	N
ATOM	158	C	GLN A 229	38.489	36.159	56.869	1.00	20.06	C
ATOM	159	O	GLN A 229	39.393	36.157	56.025	1.00	21.36	O
ATOM	160	N	GLN A 230	38.562	35.521	58.037	1.00	20.08	N
ATOM	162	CA	GLN A 230	39.694	34.722	58.456	1.00	20.38	C
ATOM	164	CB	GLN A 230	39.474	34.252	59.910	1.00	21.01	C
ATOM	167	CG	GLN A 230	40.644	33.461	60.547	1.00	22.28	C
ATOM	170	CD	GLN A 230	41.861	34.338	60.826	1.00	23.50	C
ATOM	171	OE1	GLN A 230	41.826	35.548	60.575	1.00	27.54	O
ATOM	172	NE2	GLN A 230	42.934	33.742	61.355	1.00	24.11	N
ATOM	175	C	GLN A 230	39.825	33.504	57.541	1.00	20.37	C
ATOM	176	O	GLN A 230	40.901	33.189	57.052	1.00	21.03	O
ATOM	177	N	LEU A 231	38.711	32.825	57.332	1.00	19.33	N
ATOM	179	CA	LEU A 231	38.644	31.704	56.406	1.00	19.15	C
ATOM	181	CB	LEU A 231	37.245	31.055	56.426	1.00	18.97	C
ATOM	184	CG	LEU A 231	36.651	30.604	57.755	1.00	18.51	C
ATOM	186	CD1	LEU A 231	35.259	30.038	57.502	1.00	19.61	C
ATOM	190	CD2	LEU A 231	37.532	29.608	58.408	1.00	17.58	C
ATOM	194	C	LEU A 231	38.981	32.098	54.965	1.00	18.07	C
ATOM	195	O	LEU A 231	39.733	31.404	54.303	1.00	19.06	O
ATOM	196	N	VAL A 232	38.404	33.171	54.471	1.00	16.56	N
ATOM	198	CA	VAL A 232	38.659	33.594	53.111	1.00	16.52	C
ATOM	200	CB	VAL A 232	37.793	34.826	52.744	1.00	16.05	C
ATOM	202	CG1	VAL A 232	38.277	35.487	51.440	1.00	14.87	C
ATOM	206	CG2	VAL A 232	36.362	34.416	52.610	1.00	15.09	C
ATOM	210	C	VAL A 232	40.161	33.904	52.906	1.00	17.56	C
ATOM	211	O	VAL A 232	40.760	33.501	51.895	1.00	17.08	O
ATOM	212	N	ALA A 233	40.753	34.635	53.853	1.00	18.36	N
ATOM	214	CA	ALA A 233	42.157	35.053	53.738	1.00	19.26	C
ATOM	216	CB	ALA A 233	42.466	36.197	54.723	1.00	18.99	C
ATOM	220	C	ALA A 233	43.106	33.877	53.958	1.00	20.32	C
ATOM	221	O	ALA A 233	44.184	33.833	53.399	1.00	19.59	O
ATOM	222	N	ALA A 234	42.683	32.913	54.764	1.00	22.20	N
ATOM	224	CA	ALA A 234	43.476	31.728	55.028	1.00	23.33	C
ATOM	226	CB	ALA A 234	42.855	30.940	56.122	1.00	23.33	C
ATOM	230	C	ALA A 234	43.522	30.910	53.763	1.00	24.99	C
ATOM	231	O	ALA A 234	44.540	30.367	53.402	1.00	24.97	O
ATOM	232	N	GLN A 235	42.386	30.841	53.087	1.00	26.96	N
ATOM	234	CA	GLN A 235	42.237	30.049	51.885	1.00	28.40	C
ATOM	236	CB	GLN A 235	40.751	30.006	51.494	1.00	28.71	C
ATOM	239	CG	GLN A 235	40.451	29.293	50.198	1.00	31.32	C
ATOM	242	CD	GLN A 235	39.275	28.371	50.317	1.00	34.64	C

ATOM	243	OE1 GLN A 235	38.141	28.830	50.488	1.00	37.17	O
ATOM	244	NE2 GLN A 235	39.531	27.061	50.238	1.00	34.51	N
ATOM	247	C GLN A 235	43.116	30.603	50.775	1.00	28.96	C
ATOM	248	O GLN A 235	43.809	29.856	50.112	1.00	29.36	O
ATOM	249	N LEU A 236	43.120	31.915	50.619	1.00	30.11	N
ATOM	251	CA LEU A 236	43.962	32.586	49.638	1.00	31.34	C
ATOM	253	CB LEU A 236	43.509	34.041	49.522	1.00	31.53	C
ATOM	256	CG LEU A 236	44.041	34.966	48.423	1.00	33.04	C
ATOM	258	CD1 LEU A 236	44.646	34.248	47.195	1.00	34.47	C
ATOM	262	CD2 LEU A 236	42.890	35.882	47.971	1.00	34.38	C
ATOM	266	C LEU A 236	45.480	32.526	49.948	1.00	32.20	C
ATOM	267	O LEU A 236	46.294	32.434	49.037	1.00	31.58	O
ATOM	268	N GLN A 237	45.868	32.576	51.218	1.00	33.32	N
ATOM	270	CA GLN A 237	47.283	32.480	51.567	1.00	34.44	C
ATOM	272	CB GLN A 237	47.552	33.065	52.967	1.00	34.50	C
ATOM	275	CG GLN A 237	49.027	33.026	53.460	1.00	35.10	C
ATOM	278	CD GLN A 237	50.040	33.693	52.509	1.00	36.63	C
ATOM	279	OE1 GLN A 237	49.791	34.772	51.957	1.00	36.48	O
ATOM	280	NE2 GLN A 237	51.192	33.048	52.335	1.00	36.81	N
ATOM	283	C GLN A 237	47.786	31.035	51.423	1.00	35.77	C
ATOM	284	O GLN A 237	48.955	30.838	51.129	1.00	35.62	O
ATOM	285	N CYS A 238	46.912	30.034	51.597	1.00	37.59	N
ATOM	287	CA CYS A 238	47.301	28.615	51.438	1.00	39.46	C
ATOM	289	CB CYS A 238	46.237	27.649	51.999	1.00	39.59	C
ATOM	292	SG CYS A 238	46.181	27.601	53.804	1.00	40.56	S
ATOM	293	C CYS A 238	47.516	28.289	49.973	1.00	40.75	C
ATOM	294	O CYS A 238	48.401	27.518	49.614	1.00	41.33	O
ATOM	295	N ASN A 239	46.682	28.890	49.141	1.00	42.10	N
ATOM	297	CA ASN A 239	46.776	28.758	47.709	1.00	43.09	C
ATOM	299	CB ASN A 239	45.498	29.322	47.095	1.00	43.37	C
ATOM	302	CG ASN A 239	45.427	29.097	45.608	1.00	45.64	C
ATOM	303	OD1 ASN A 239	45.300	27.948	45.146	1.00	48.37	O
ATOM	304	ND2 ASN A 239	45.513	30.188	44.836	1.00	45.47	N
ATOM	307	C ASN A 239	48.016	29.479	47.151	1.00	43.48	C
ATOM	308	O ASN A 239	48.809	28.885	46.422	1.00	43.67	O
ATOM	309	N LYS A 240	48.177	30.748	47.520	1.00	43.94	N
ATOM	311	CA LYS A 240	49.254	31.612	47.027	1.00	44.29	C
ATOM	313	CB LYS A 240	49.130	33.007	47.666	1.00	44.30	C
ATOM	316	CG LYS A 240	50.205	34.017	47.283	1.00	45.01	C
ATOM	319	CD LYS A 240	51.068	34.463	48.497	1.00	45.64	C
ATOM	322	CE LYS A 240	52.528	34.788	48.123	1.00	45.21	C
ATOM	325	NZ LYS A 240	52.900	36.182	48.506	1.00	44.45	N
ATOM	329	C LYS A 240	50.638	31.015	47.284	1.00	44.77	C
ATOM	330	O LYS A 240	51.494	31.006	46.389	1.00	44.94	O
ATOM	331	N ARG A 241	50.853	30.484	48.484	1.00	45.29	N
ATOM	333	CA ARG A 241	52.161	29.936	48.844	1.00	45.73	C
ATOM	335	CB ARG A 241	52.324	29.860	50.375	1.00	45.60	C
ATOM	338	CG ARG A 241	51.814	28.620	51.057	1.00	45.93	C

ATOM	341	CD	ARG A 241	51.894	28.707	52.573	1.00	45.89	C
ATOM	344	NE	ARG A 241	53.247	28.478	53.068	1.00	45.29	N
ATOM	346	CZ	ARG A 241	53.574	27.711	54.112	1.00	45.70	C
ATOM	347	NH1	ARG A 241	52.652	27.064	54.823	1.00	45.14	N
ATOM	350	NH2	ARG A 241	54.853	27.593	54.452	1.00	46.29	N
ATOM	353	C	ARG A 241	52.503	28.602	48.134	1.00	46.13	C
ATOM	354	O	ARG A 241	53.655	28.377	47.773	1.00	46.44	O
ATOM	355	N	SER A 242	51.511	27.748	47.899	1.00	46.59	N
ATOM	357	CA	SER A 242	51.743	26.466	47.212	1.00	46.88	C
ATOM	359	CB	SER A 242	50.646	25.472	47.596	1.00	46.75	C
ATOM	362	OG	SER A 242	50.717	25.193	48.986	1.00	47.56	O
ATOM	364	C	SER A 242	51.857	26.576	45.674	1.00	46.93	C
ATOM	365	O	SER A 242	51.601	27.632	45.077	1.00	46.82	O
ATOM	366	N	PRO A 247	54.724	22.837	43.959	1.00	33.07	N
ATOM	367	CA	PRO A 247	56.172	22.670	43.748	1.00	33.14	C
ATOM	369	CB	PRO A 247	56.700	22.242	45.132	1.00	33.12	C
ATOM	372	CG	PRO A 247	55.471	22.096	46.032	1.00	33.34	C
ATOM	375	CD	PRO A 247	54.382	22.917	45.388	1.00	33.19	C
ATOM	378	C	PRO A 247	56.500	21.607	42.698	1.00	32.82	C
ATOM	379	O	PRO A 247	55.578	20.966	42.176	1.00	33.05	O
ATOM	380	N	LYS A 248	57.796	21.464	42.405	1.00	32.25	N
ATOM	382	CA	LYS A 248	58.371	20.452	41.487	1.00	31.95	C
ATOM	384	CB	LYS A 248	59.853	20.133	41.830	1.00	32.14	C
ATOM	387	CG	LYS A 248	60.544	20.953	42.964	1.00	33.20	C
ATOM	390	CD	LYS A 248	59.958	20.695	44.399	1.00	34.19	C
ATOM	393	CE	LYS A 248	61.060	20.551	45.479	1.00	35.05	C
ATOM	396	NZ	LYS A 248	61.959	21.762	45.631	1.00	35.51	N
ATOM	400	C	LYS A 248	57.594	19.135	41.431	1.00	31.29	C
ATOM	401	O	LYS A 248	57.233	18.584	42.470	1.00	31.80	O
ATOM	402	N	VAL A 249	57.362	18.624	40.222	1.00	30.21	N
ATOM	404	CA	VAL A 249	56.507	17.444	40.034	1.00	29.34	C
ATOM	406	CB	VAL A 249	55.043	17.844	39.690	1.00	29.36	C
ATOM	408	CG1	VAL A 249	54.175	17.827	40.936	1.00	28.98	C
ATOM	412	CG2	VAL A 249	54.983	19.217	39.012	1.00	29.91	C
ATOM	416	C	VAL A 249	57.013	16.505	38.944	1.00	28.28	C
ATOM	417	O	VAL A 249	57.743	16.920	38.067	1.00	28.23	O
ATOM	418	N	THR A 250	56.601	15.242	39.000	1.00	27.22	N
ATOM	420	CA	THR A 250	56.939	14.280	37.960	1.00	26.62	C
ATOM	422	CB	THR A 250	56.376	12.874	38.282	1.00	26.66	C
ATOM	424	OG1	THR A 250	56.952	12.373	39.496	1.00	26.45	O
ATOM	426	CG2	THR A 250	56.790	11.864	37.223	1.00	25.61	C
ATOM	430	C	THR A 250	56.327	14.775	36.656	1.00	26.23	C
ATOM	431	O	THR A 250	55.129	15.061	36.626	1.00	25.74	O
ATOM	432	N	PRO A 251	57.140	14.913	35.602	1.00	25.92	N
ATOM	433	CA	PRO A 251	56.645	15.329	34.276	1.00	25.62	C
ATOM	435	CB	PRO A 251	57.875	15.215	33.373	1.00	25.90	C
ATOM	438	CG	PRO A 251	59.057	15.249	34.281	1.00	26.42	C
ATOM	441	CD	PRO A 251	58.606	14.750	35.618	1.00	26.02	C

ATOM	444	C	PRO A 251	55.520	14.462	33.697	1.00	25.11	C
ATOM	445	O	PRO A 251	55.559	13.224	33.769	1.00	25.06	O
ATOM	446	N	TRP A 252	54.517	15.146	33.148	1.00	24.35	N
ATOM	448	CA	TRP A 252	53.417	14.522	32.429	1.00	23.64	C
ATOM	450	CB	TRP A 252	52.293	15.552	32.276	1.00	23.52	C
ATOM	453	CG	TRP A 252	51.105	15.050	31.558	1.00	23.17	C
ATOM	454	CD1	TRP A 252	50.777	15.287	30.258	1.00	22.55	C
ATOM	456	NE1	TRP A 252	49.596	14.657	29.951	1.00	23.51	N
ATOM	458	CE2	TRP A 252	49.138	13.997	31.062	1.00	22.59	C
ATOM	459	CD2	TRP A 252	50.069	14.223	32.093	1.00	22.56	C
ATOM	460	CE3	TRP A 252	49.826	13.655	33.348	1.00	22.89	C
ATOM	462	CZ3	TRP A 252	48.694	12.888	33.523	1.00	22.68	C
ATOM	464	CH2	TRP A 252	47.794	12.675	32.470	1.00	22.15	C
ATOM	466	CZ2	TRP A 252	47.998	13.221	31.239	1.00	21.90	C
ATOM	468	C	TRP A 252	53.938	14.085	31.054	1.00	22.99	C
ATOM	469	O	TRP A 252	54.552	14.888	30.366	1.00	22.61	O
ATOM	470	N	PRO A 253	53.712	12.832	30.655	1.00	22.60	N
ATOM	471	CA	PRO A 253	54.294	12.306	29.406	1.00	22.65	C
ATOM	473	CB	PRO A 253	54.162	10.786	29.569	1.00	22.52	C
ATOM	476	CG	PRO A 253	52.959	10.615	30.439	1.00	22.86	C
ATOM	479	CD	PRO A 253	52.896	11.821	31.350	1.00	22.50	C
ATOM	482	C	PRO A 253	53.567	12.775	28.143	1.00	22.39	C
ATOM	483	O	PRO A 253	52.382	12.466	28.027	1.00	22.25	O
ATOM	484	N	ALA A 259	49.422	3.445	24.159	1.00	31.79	N
ATOM	486	CA	ALA A 259	49.766	3.864	25.510	1.00	31.96	C
ATOM	488	CB	ALA A 259	48.535	4.456	26.212	1.00	31.97	C
ATOM	492	C	ALA A 259	50.350	2.701	26.333	1.00	31.93	C
ATOM	493	O	ALA A 259	49.638	1.749	26.675	1.00	32.13	O
ATOM	494	N	ALA A 260	51.640	2.801	26.662	1.00	31.62	N
ATOM	496	CA	ALA A 260	52.345	1.774	27.434	1.00	31.36	C
ATOM	498	CB	ALA A 260	53.865	1.966	27.289	1.00	31.43	C
ATOM	502	C	ALA A 260	51.947	1.741	28.922	1.00	31.15	C
ATOM	503	O	ALA A 260	51.163	2.575	29.397	1.00	30.98	O
ATOM	504	N	ALA A 261	52.501	0.761	29.644	1.00	30.82	N
ATOM	506	CA	ALA A 261	52.275	0.590	31.086	1.00	30.41	C
ATOM	508	CB	ALA A 261	52.496	-0.869	31.499	1.00	30.46	C
ATOM	512	C	ALA A 261	53.166	1.517	31.925	1.00	30.11	C
ATOM	513	O	ALA A 261	52.736	1.981	32.996	1.00	29.75	O
ATOM	514	N	ASP A 262	54.399	1.760	31.451	1.00	29.31	N
ATOM	516	CA	ASP A 262	55.285	2.780	32.038	1.00	28.85	C
ATOM	518	CB	ASP A 262	56.591	2.920	31.242	1.00	28.92	C
ATOM	521	CG	ASP A 262	57.601	1.814	31.539	1.00	29.74	C
ATOM	522	OD1	ASP A 262	57.785	1.456	32.726	1.00	30.32	O
ATOM	523	OD2	ASP A 262	58.271	1.260	30.633	1.00	29.19	O
ATOM	524	C	ASP A 262	54.600	4.156	32.073	1.00	28.24	C
ATOM	525	O	ASP A 262	54.760	4.915	33.035	1.00	27.58	O
ATOM	526	N	ALA A 263	53.852	4.460	31.010	1.00	27.62	N
ATOM	528	CA	ALA A 263	53.199	5.757	30.842	1.00	27.34	C

ATOM	530	CB	ALA A 263	52.822	5.971	29.392	1.00	27.27	C
ATOM	534	C	ALA A 263	51.969	5.921	31.736	1.00	27.01	C
ATOM	535	O	ALA A 263	51.722	7.012	32.239	1.00	26.97	O
ATOM	536	N	ARG A 264	51.199	4.846	31.910	1.00	26.59	N
ATOM	538	CA	ARG A 264	50.094	4.819	32.875	1.00	26.11	C
ATOM	540	CB	ARG A 264	49.450	3.409	32.930	1.00	26.56	C
ATOM	543	CG	ARG A 264	47.907	3.344	33.034	1.00	27.65	C
ATOM	546	CD	ARG A 264	47.294	1.976	32.598	1.00	30.14	C
ATOM	549	NE	ARG A 264	46.214	2.120	31.602	1.00	32.09	N
ATOM	551	CZ	ARG A 264	44.891	2.012	31.846	1.00	33.53	C
ATOM	552	NH1	ARG A 264	44.417	1.722	33.059	1.00	33.09	N
ATOM	555	NH2	ARG A 264	44.022	2.186	30.852	1.00	34.09	N
ATOM	558	C	ARG A 264	50.657	5.241	34.246	1.00	25.26	C
ATOM	559	O	ARG A 264	50.286	6.280	34.778	1.00	24.99	O
ATOM	560	N	GLN A 265	51.589	4.443	34.771	1.00	24.21	N
ATOM	562	CA	GLN A 265	52.258	4.693	36.051	1.00	23.40	C
ATOM	564	CB	GLN A 265	53.373	3.650	36.289	1.00	23.57	C
ATOM	567	CG	GLN A 265	52.852	2.204	36.554	1.00	24.88	C
ATOM	570	CD	GLN A 265	53.863	1.057	36.251	1.00	27.58	C
ATOM	571	OE1	GLN A 265	53.596	-0.090	36.619	1.00	29.26	O
ATOM	572	NE2	GLN A 265	54.994	1.360	35.578	1.00	27.55	N
ATOM	575	C	GLN A 265	52.833	6.108	36.124	1.00	22.07	C
ATOM	576	O	GLN A 265	52.866	6.716	37.193	1.00	22.21	O
ATOM	577	N	GLN A 266	53.265	6.633	34.986	1.00	20.33	N
ATOM	579	CA	GLN A 266	53.733	8.008	34.896	1.00	19.32	C
ATOM	581	CB	GLN A 266	54.221	8.312	33.489	1.00	19.42	C
ATOM	584	CG	GLN A 266	55.094	9.506	33.429	1.00	20.37	C
ATOM	587	CD	GLN A 266	56.485	9.151	33.837	1.00	21.46	C
ATOM	588	OE1	GLN A 266	56.737	8.905	35.019	1.00	23.58	O
ATOM	589	NE2	GLN A 266	57.388	9.085	32.875	1.00	19.41	N
ATOM	592	C	GLN A 266	52.638	9.016	35.225	1.00	18.20	C
ATOM	593	O	GLN A 266	52.788	9.827	36.122	1.00	17.55	O
ATOM	594	N	ARG A 267	51.557	8.972	34.460	1.00	16.94	N
ATOM	596	CA	ARG A 267	50.481	9.917	34.608	1.00	16.47	C
ATOM	598	CB	ARG A 267	49.371	9.619	33.611	1.00	16.49	C
ATOM	601	CG	ARG A 267	49.736	9.852	32.147	1.00	17.69	C
ATOM	604	CD	ARG A 267	48.542	9.650	31.207	1.00	18.64	C
ATOM	607	NE	ARG A 267	48.884	9.329	29.818	1.00	18.72	N
ATOM	609	CZ	ARG A 267	49.280	8.128	29.373	1.00	18.73	C
ATOM	610	NH1	ARG A 267	49.447	7.094	30.196	1.00	18.38	N
ATOM	613	NH2	ARG A 267	49.519	7.964	28.084	1.00	18.47	N
ATOM	616	C	ARG A 267	49.953	9.820	36.031	1.00	15.55	C
ATOM	617	O	ARG A 267	49.721	10.824	36.677	1.00	15.03	O
ATOM	618	N	PHE A 268	49.813	8.595	36.511	1.00	14.78	N
ATOM	620	CA	PHE A 268	49.328	8.313	37.844	1.00	14.57	C
ATOM	622	CB	PHE A 268	49.153	6.802	38.042	1.00	14.44	C
ATOM	625	CG	PHE A 268	48.644	6.431	39.409	1.00	15.41	C
ATOM	626	CD1	PHE A 268	47.333	6.735	39.781	1.00	16.17	C

ATOM	628	CE1 PHE A 268	46.870	6.418	41.029	1.00	15.66	C
ATOM	630	CZ PHE A 268	47.701	5.803	41.943	1.00	15.46	C
ATOM	632	CE2 PHE A 268	49.006	5.517	41.614	1.00	16.39	C
ATOM	634	CD2 PHE A 268	49.481	5.827	40.342	1.00	15.83	C
ATOM	636	C PHE A 268	50.262	8.866	38.915	1.00	14.33	C
ATOM	637	O PHE A 268	49.802	9.415	39.901	1.00	14.80	O
ATOM	638	N ALA A 269	51.564	8.708	38.740	1.00	13.95	N
ATOM	640	CA ALA A 269	52.519	9.278	39.671	1.00	13.81	C
ATOM	642	CB ALA A 269	53.952	8.923	39.272	1.00	13.84	C
ATOM	646	C ALA A 269	52.337	10.784	39.692	1.00	13.92	C
ATOM	647	O ALA A 269	52.425	11.408	40.728	1.00	13.48	O
ATOM	648	N HIS A 270	52.065	11.353	38.531	1.00	14.53	N
ATOM	650	CA HIS A 270	51.950	12.792	38.371	1.00	15.16	C
ATOM	652	CB HIS A 270	51.847	13.132	36.863	1.00	15.31	C
ATOM	655	CG HIS A 270	51.558	14.568	36.586	1.00	16.76	C
ATOM	656	ND1 HIS A 270	52.532	15.544	36.607	1.00	17.80	N
ATOM	658	CE1 HIS A 270	51.982	16.717	36.349	1.00	17.48	C
ATOM	660	NE2 HIS A 270	50.687	16.536	36.161	1.00	18.24	N
ATOM	662	CD2 HIS A 270	50.394	15.201	36.309	1.00	17.72	C
ATOM	664	C HIS A 270	50.767	13.335	39.190	1.00	15.34	C
ATOM	665	O HIS A 270	50.933	14.279	39.933	1.00	15.27	O
ATOM	666	N PHE A 271	49.607	12.691	39.094	1.00	15.80	N
ATOM	668	CA PHE A 271	48.375	13.154	39.732	1.00	16.36	C
ATOM	670	CB PHE A 271	47.198	12.370	39.184	1.00	16.83	C
ATOM	673	CG PHE A 271	46.637	12.890	37.892	1.00	18.89	C
ATOM	674	CD1 PHE A 271	46.672	14.235	37.568	1.00	20.17	C
ATOM	676	CE1 PHE A 271	46.117	14.690	36.381	1.00	21.37	C
ATOM	678	CZ PHE A 271	45.499	13.811	35.518	1.00	21.87	C
ATOM	680	CE2 PHE A 271	45.452	12.465	35.832	1.00	21.99	C
ATOM	682	CD2 PHE A 271	46.018	12.011	37.012	1.00	21.37	C
ATOM	684	C PHE A 271	48.392	12.907	41.228	1.00	16.44	C
ATOM	685	O PHE A 271	47.848	13.665	42.007	1.00	16.74	O
ATOM	686	N THR A 272	48.979	11.786	41.604	1.00	16.45	N
ATOM	688	CA THR A 272	49.315	11.465	42.984	1.00	16.20	C
ATOM	690	CB THR A 272	50.091	10.095	42.987	1.00	16.35	C
ATOM	692	OG1 THR A 272	49.502	9.215	43.930	1.00	18.82	O
ATOM	694	CG2 THR A 272	51.555	10.205	43.424	1.00	17.10	C
ATOM	698	C THR A 272	50.109	12.604	43.635	1.00	15.40	C
ATOM	699	O THR A 272	49.839	12.984	44.768	1.00	14.67	O
ATOM	700	N GLU A 273	51.073	13.165	42.903	1.00	15.13	N
ATOM	702	CA GLU A 273	51.881	14.272	43.421	1.00	14.90	C
ATOM	704	CB GLU A 273	53.159	14.412	42.607	1.00	15.52	C
ATOM	707	CG GLU A 273	54.132	13.250	42.861	1.00	16.25	C
ATOM	710	CD GLU A 273	55.249	13.169	41.859	1.00	17.92	C
ATOM	711	OE1 GLU A 273	55.767	14.231	41.459	1.00	20.84	O
ATOM	712	OE2 GLU A 273	55.652	12.039	41.496	1.00	21.55	O
ATOM	713	C GLU A 273	51.098	15.593	43.497	1.00	14.74	C
ATOM	714	O GLU A 273	51.260	16.344	44.447	1.00	14.46	O

ATOM	715	N	LEU A 274	50.218	15.862	42.535	1.00	14.42	N
ATOM	717	CA	LEU A 274	49.336	17.031	42.631	1.00	14.65	C
ATOM	719	CB	LEU A 274	48.498	17.207	41.345	1.00	14.63	C
ATOM	722	CG	LEU A 274	49.284	17.516	40.068	1.00	14.28	C
ATOM	724	CD1	LEU A 274	48.414	17.415	38.840	1.00	15.31	C
ATOM	728	CD2	LEU A 274	49.888	18.887	40.131	1.00	14.98	C
ATOM	732	C	LEU A 274	48.409	16.917	43.851	1.00	14.54	C
ATOM	733	O	LEU A 274	48.110	17.909	44.509	1.00	14.70	O
ATOM	734	N	ALA A 275	47.983	15.693	44.149	1.00	13.96	N
ATOM	736	CA	ALA A 275	47.077	15.424	45.260	1.00	13.49	C
ATOM	738	CB	ALA A 275	46.490	13.991	45.142	1.00	13.71	C
ATOM	742	C	ALA A 275	47.769	15.614	46.599	1.00	12.71	C
ATOM	743	O	ALA A 275	47.163	16.055	47.552	1.00	13.39	O
ATOM	744	N	ILE A 276	49.043	15.296	46.680	1.00	12.15	N
ATOM	746	CA	ILE A 276	49.822	15.584	47.880	1.00	11.63	C
ATOM	748	CB	ILE A 276	51.239	14.963	47.771	1.00	11.58	C
ATOM	750	CG1	ILE A 276	51.135	13.464	48.083	1.00	12.30	C
ATOM	753	CD1	ILE A 276	52.253	12.660	47.555	1.00	10.66	C
ATOM	757	CG2	ILE A 276	52.208	15.634	48.723	1.00	10.38	C
ATOM	761	C	ILE A 276	49.937	17.077	48.118	1.00	11.95	C
ATOM	762	O	ILE A 276	49.870	17.516	49.255	1.00	10.18	O
ATOM	763	N	ILE A 277	50.176	17.841	47.047	1.00	13.10	N
ATOM	765	CA	ILE A 277	50.234	19.300	47.133	1.00	13.53	C
ATOM	767	CB	ILE A 277	50.340	19.980	45.751	1.00	13.51	C
ATOM	769	CG1	ILE A 277	51.642	19.656	45.007	1.00	14.87	C
ATOM	772	CD1	ILE A 277	52.851	19.778	45.806	1.00	16.04	C
ATOM	776	CG2	ILE A 277	50.176	21.496	45.919	1.00	14.18	C
ATOM	780	C	ILE A 277	48.933	19.780	47.767	1.00	13.48	C
ATOM	781	O	ILE A 277	48.949	20.580	48.693	1.00	13.40	O
ATOM	782	N	SER A 278	47.807	19.310	47.246	1.00	13.36	N
ATOM	784	CA	SER A 278	46.491	19.716	47.775	1.00	14.14	C
ATOM	786	CB	SER A 278	45.351	19.118	46.931	1.00	14.44	C
ATOM	789	OG	SER A 278	44.147	18.996	47.666	1.00	17.27	O
ATOM	791	C	SER A 278	46.319	19.312	49.227	1.00	13.88	C
ATOM	792	O	SER A 278	45.755	20.055	50.011	1.00	14.45	O
ATOM	793	N	VAL A 279	46.808	18.136	49.594	1.00	13.99	N
ATOM	795	CA	VAL A 279	46.679	17.690	50.964	1.00	14.81	C
ATOM	797	CB	VAL A 279	47.216	16.249	51.143	1.00	14.88	C
ATOM	799	CG1	VAL A 279	47.349	15.886	52.625	1.00	14.84	C
ATOM	803	CG2	VAL A 279	46.281	15.239	50.453	1.00	14.52	C
ATOM	807	C	VAL A 279	47.398	18.692	51.874	1.00	15.98	C
ATOM	808	O	VAL A 279	46.882	19.094	52.900	1.00	16.77	O
ATOM	809	N	GLN A 280	48.576	19.131	51.464	1.00	16.73	N
ATOM	811	CA	GLN A 280	49.358	20.081	52.240	1.00	17.30	C
ATOM	813	CB	GLN A 280	50.696	20.330	51.561	1.00	17.11	C
ATOM	816	CG	GLN A 280	51.648	21.199	52.336	1.00	18.49	C
ATOM	819	CD	GLN A 280	52.821	21.698	51.489	1.00	20.11	C
ATOM	820	OE1	GLN A 280	52.691	21.886	50.276	1.00	20.62	O

ATOM	821	NE2 GLN A 280	53.968	21.885	52.126	1.00	17.93	N
ATOM	824	C GLN A 280	48.607	21.393	52.425	1.00	17.42	C
ATOM	825	O GLN A 280	48.573	21.919	53.509	1.00	17.16	O
ATOM	826	N GLU A 281	47.999	21.901	51.369	1.00	17.96	N
ATOM	828	CA GLU A 281	47.150	23.077	51.490	1.00	19.38	C
ATOM	830	CB GLU A 281	46.479	23.404	50.170	1.00	19.70	C
ATOM	833	CG GLU A 281	47.420	23.843	49.093	1.00	22.42	C
ATOM	836	CD GLU A 281	46.660	24.233	47.856	1.00	27.65	C
ATOM	837	OE1 GLU A 281	46.934	23.643	46.792	1.00	30.06	O
ATOM	838	OE2 GLU A 281	45.782	25.135	47.962	1.00	31.96	O
ATOM	839	C GLU A 281	46.043	22.888	52.500	1.00	19.28	C
ATOM	840	O GLU A 281	45.854	23.709	53.358	1.00	19.90	O
ATOM	841	N ILE A 282	45.307	21.796	52.390	1.00	19.77	N
ATOM	843	CA ILE A 282	44.146	21.576	53.245	1.00	19.42	C
ATOM	845	CB ILE A 282	43.429	20.290	52.816	1.00	19.20	C
ATOM	847	CG1 ILE A 282	42.746	20.483	51.465	1.00	18.34	C
ATOM	850	CD1 ILE A 282	42.449	19.148	50.700	1.00	17.40	C
ATOM	854	CG2 ILE A 282	42.458	19.819	53.876	1.00	19.76	C
ATOM	858	C ILE A 282	44.553	21.502	54.711	1.00	20.02	C
ATOM	859	O ILE A 282	43.876	22.077	55.575	1.00	19.86	O
ATOM	860	N VAL A 283	45.636	20.775	54.990	1.00	20.45	N
ATOM	862	CA VAL A 283	46.130	20.610	56.361	1.00	21.08	C
ATOM	864	CB VAL A 283	47.408	19.701	56.449	1.00	20.75	C
ATOM	866	CG1 VAL A 283	48.047	19.807	57.813	1.00	19.55	C
ATOM	870	CG2 VAL A 283	47.070	18.227	56.137	1.00	21.29	C
ATOM	874	C VAL A 283	46.480	21.960	56.957	1.00	21.88	C
ATOM	875	O VAL A 283	46.096	22.243	58.078	1.00	22.73	O
ATOM	876	N ASP A 284	47.250	22.754	56.206	1.00	21.96	N
ATOM	878	CA ASP A 284	47.655	24.103	56.577	1.00	22.32	C
ATOM	880	CB ASP A 284	48.577	24.698	55.479	1.00	22.91	C
ATOM	883	CG ASP A 284	50.020	24.107	55.480	1.00	27.11	C
ATOM	884	OD1 ASP A 284	50.889	24.703	54.784	1.00	30.69	O
ATOM	885	OD2 ASP A 284	50.395	23.067	56.106	1.00	31.70	O
ATOM	886	C ASP A 284	46.425	25.030	56.773	1.00	21.69	C
ATOM	887	O ASP A 284	46.407	25.840	57.660	1.00	21.91	O
ATOM	888	N PHE A 285	45.411	24.908	55.932	1.00	21.20	N
ATOM	890	CA PHE A 285	44.184	25.687	56.068	1.00	21.41	C
ATOM	892	CB PHE A 285	43.310	25.533	54.809	1.00	20.47	C
ATOM	895	CG PHE A 285	41.915	26.101	54.959	1.00	20.10	C
ATOM	896	CD1 PHE A 285	41.652	27.439	54.699	1.00	20.08	C
ATOM	898	CE1 PHE A 285	40.362	27.961	54.842	1.00	18.61	C
ATOM	900	CZ PHE A 285	39.340	27.144	55.257	1.00	18.38	C
ATOM	902	CE2 PHE A 285	39.597	25.818	55.542	1.00	20.39	C
ATOM	904	CD2 PHE A 285	40.870	25.298	55.384	1.00	18.65	C
ATOM	906	C PHE A 285	43.393	25.309	57.350	1.00	21.80	C
ATOM	907	O PHE A 285	42.930	26.183	58.079	1.00	21.00	O
ATOM	908	N ALA A 286	43.250	24.007	57.599	1.00	22.45	N
ATOM	910	CA ALA A 286	42.525	23.497	58.759	1.00	22.55	C

ATOM	912	CB	ALA A 286	42.534	22.013	58.751	1.00	21.84	C
ATOM	916	C	ALA A 286	43.087	24.021	60.086	1.00	23.89	C
ATOM	917	O	ALA A 286	42.329	24.439	60.940	1.00	23.39	O
ATOM	918	N	LYS A 287	44.410	24.029	60.262	1.00	25.94	N
ATOM	920	CA	LYS A 287	45.015	24.533	61.513	1.00	27.03	C
ATOM	922	CB	LYS A 287	46.507	24.197	61.565	1.00	28.33	C
ATOM	925	CG	LYS A 287	46.819	22.686	61.828	1.00	32.10	C
ATOM	928	CD	LYS A 287	46.778	22.320	63.378	1.00	35.99	C
ATOM	931	CE	LYS A 287	47.553	20.974	63.752	1.00	37.37	C
ATOM	934	NZ	LYS A 287	46.837	19.675	63.380	1.00	36.79	N
ATOM	938	C	LYS A 287	44.792	26.046	61.744	1.00	27.29	C
ATOM	939	O	LYS A 287	45.130	26.584	62.816	1.00	28.49	O
ATOM	940	N	GLN A 288	44.221	26.732	60.753	1.00	26.39	N
ATOM	942	CA	GLN A 288	43.874	28.147	60.863	1.00	25.65	C
ATOM	944	CB	GLN A 288	44.391	28.877	59.638	1.00	25.37	C
ATOM	947	CG	GLN A 288	45.840	28.657	59.473	1.00	28.98	C
ATOM	950	CD	GLN A 288	46.530	29.881	59.075	1.00	31.64	C
ATOM	951	OE1	GLN A 288	47.098	30.589	59.911	1.00	34.69	O
ATOM	952	NE2	GLN A 288	46.469	30.178	57.793	1.00	35.01	N
ATOM	955	C	GLN A 288	42.373	28.388	60.978	1.00	24.59	C
ATOM	956	O	GLN A 288	41.934	29.528	61.136	1.00	23.94	O
ATOM	957	N	VAL A 289	41.588	27.329	60.840	1.00	23.23	N
ATOM	959	CA	VAL A 289	40.164	27.437	61.071	1.00	22.95	C
ATOM	961	CB	VAL A 289	39.438	26.211	60.571	1.00	22.40	C
ATOM	963	CG1	VAL A 289	37.983	26.292	60.952	1.00	23.31	C
ATOM	967	CG2	VAL A 289	39.612	26.072	59.068	1.00	20.88	C
ATOM	971	C	VAL A 289	39.978	27.592	62.575	1.00	22.64	C
ATOM	972	O	VAL A 289	40.404	26.735	63.311	1.00	22.81	O
ATOM	973	N	PRO A 290	39.404	28.692	63.051	1.00	22.42	N
ATOM	974	CA	PRO A 290	39.137	28.825	64.494	1.00	22.62	C
ATOM	976	CB	PRO A 290	38.396	30.150	64.589	1.00	22.56	C
ATOM	979	CG	PRO A 290	38.922	30.917	63.436	1.00	23.19	C
ATOM	982	CD	PRO A 290	39.017	29.899	62.314	1.00	22.20	C
ATOM	985	C	PRO A 290	38.291	27.676	65.047	1.00	22.64	C
ATOM	986	O	PRO A 290	37.255	27.358	64.468	1.00	22.25	O
ATOM	987	N	GLY A 291	38.751	27.065	66.134	1.00	22.94	N
ATOM	989	CA	GLY A 291	38.121	25.879	66.683	1.00	23.65	C
ATOM	992	C	GLY A 291	38.995	24.637	66.533	1.00	24.02	C
ATOM	993	O	GLY A 291	39.035	23.783	67.423	1.00	24.52	O
ATOM	994	N	PHE A 292	39.719	24.534	65.426	1.00	23.97	N
ATOM	996	CA	PHE A 292	40.445	23.307	65.129	1.00	23.94	C
ATOM	998	CB	PHE A 292	41.023	23.375	63.728	1.00	23.45	C
ATOM	1001	CG	PHE A 292	41.578	22.085	63.250	1.00	21.82	C
ATOM	1002	CD1	PHE A 292	40.732	21.064	62.828	1.00	19.41	C
ATOM	1004	CE1	PHE A 292	41.234	19.874	62.391	1.00	19.10	C
ATOM	1006	CZ	PHE A 292	42.605	19.667	62.357	1.00	20.35	C
ATOM	1008	CE2	PHE A 292	43.461	20.666	62.779	1.00	21.11	C
ATOM	1010	CD2	PHE A 292	42.941	21.880	63.218	1.00	20.01	C

ATOM	1012	C	PHE A 292	41.526	22.950	66.161	1.00	24.87	C
ATOM	1013	O	PHE A 292	41.698	21.780	66.516	1.00	24.60	O
ATOM	1014	N	LEU A 293	42.245	23.938	66.674	1.00	25.98	N
ATOM	1016	CA	LEU A 293	43.294	23.640	67.657	1.00	26.80	C
ATOM	1018	CB	LEU A 293	44.482	24.610	67.522	1.00	27.55	C
ATOM	1021	CG	LEU A 293	45.426	24.276	66.332	1.00	30.13	C
ATOM	1023	CD1	LEU A 293	46.377	25.443	66.010	1.00	30.34	C
ATOM	1027	CD2	LEU A 293	46.245	22.995	66.565	1.00	31.46	C
ATOM	1031	C	LEU A 293	42.763	23.560	69.106	1.00	26.18	C
ATOM	1032	O	LEU A 293	43.478	23.152	70.001	1.00	25.92	O
ATOM	1033	N	GLN A 294	41.502	23.911	69.319	1.00	25.95	N
ATOM	1035	CA	GLN A 294	40.815	23.613	70.588	1.00	25.70	C
ATOM	1037	CB	GLN A 294	39.466	24.344	70.673	1.00	25.93	C
ATOM	1040	CG	GLN A 294	39.558	25.872	70.801	1.00	26.59	C
ATOM	1043	CD	GLN A 294	38.229	26.544	70.525	1.00	28.47	C
ATOM	1044	OE1	GLN A 294	38.162	27.566	69.818	1.00	30.90	O
ATOM	1045	NE2	GLN A 294	37.161	25.974	71.068	1.00	30.91	N
ATOM	1048	C	GLN A 294	40.548	22.111	70.764	1.00	25.05	C
ATOM	1049	O	GLN A 294	40.272	21.681	71.865	1.00	24.73	O
ATOM	1050	N	LEU A 295	40.591	21.333	69.673	1.00	24.15	N
ATOM	1052	CA	LEU A 295	40.401	19.879	69.717	1.00	23.01	C
ATOM	1054	CB	LEU A 295	39.927	19.357	68.358	1.00	22.96	C
ATOM	1057	CG	LEU A 295	38.507	19.746	67.927	1.00	24.00	C
ATOM	1059	CD1	LEU A 295	38.202	19.233	66.544	1.00	23.39	C
ATOM	1063	CD2	LEU A 295	37.457	19.227	68.942	1.00	25.45	C
ATOM	1067	C	LEU A 295	41.684	19.149	70.077	1.00	22.31	C
ATOM	1068	O	LEU A 295	42.779	19.625	69.776	1.00	21.89	O
ATOM	1069	N	GLY A 296	41.540	17.980	70.708	1.00	21.41	N
ATOM	1071	CA	GLY A 296	42.663	17.104	70.977	1.00	20.64	C
ATOM	1074	C	GLY A 296	43.296	16.632	69.690	1.00	20.72	C
ATOM	1075	O	GLY A 296	42.643	16.616	68.628	1.00	20.45	O
ATOM	1076	N	ARG A 297	44.564	16.256	69.767	1.00	20.79	N
ATOM	1078	CA	ARG A 297	45.304	15.833	68.585	1.00	21.83	C
ATOM	1080	CB	ARG A 297	46.768	15.477	68.923	1.00	22.29	C
ATOM	1083	CG	ARG A 297	47.742	15.855	67.793	1.00	26.10	C
ATOM	1086	CD	ARG A 297	49.251	15.569	68.055	1.00	31.77	C
ATOM	1089	NE	ARG A 297	49.943	15.212	66.805	1.00	35.40	N
ATOM	1091	CZ	ARG A 297	50.247	13.968	66.402	1.00	39.10	C
ATOM	1092	NH1	ARG A 297	49.964	12.893	67.148	1.00	39.38	N
ATOM	1095	NH2	ARG A 297	50.856	13.796	65.228	1.00	40.91	N
ATOM	1098	C	ARG A 297	44.607	14.665	67.881	1.00	21.67	C
ATOM	1099	O	ARG A 297	44.577	14.584	66.637	1.00	21.10	O
ATOM	1100	N	GLU A 298	44.025	13.763	68.663	1.00	21.69	N
ATOM	1102	CA	GLU A 298	43.399	12.583	68.064	1.00	21.70	C
ATOM	1104	CB	GLU A 298	43.006	11.551	69.120	1.00	22.29	C
ATOM	1107	CG	GLU A 298	43.859	10.300	69.066	1.00	26.31	C
ATOM	1110	CD	GLU A 298	45.289	10.530	69.545	1.00	31.15	C
ATOM	1111	OE1	GLU A 298	46.067	11.227	68.844	1.00	34.54	O

ATOM	1112	OE2 GLU A 298	45.642	10.001	70.624	1.00	33.78	O
ATOM	1113	C GLU A 298	42.212	12.959	67.179	1.00	20.17	C
ATOM	1114	O GLU A 298	42.075	12.446	66.063	1.00	18.29	O
ATOM	1115	N ASP A 299	41.376	13.861	67.667	1.00	19.77	N
ATOM	1117	CA ASP A 299	40.245	14.346	66.869	1.00	20.44	C
ATOM	1119	CB ASP A 299	39.245	15.121	67.722	1.00	20.18	C
ATOM	1122	CG ASP A 299	38.439	14.204	68.619	1.00	21.95	C
ATOM	1123	OD1 ASP A 299	38.605	12.955	68.494	1.00	22.28	O
ATOM	1124	OD2 ASP A 299	37.647	14.629	69.493	1.00	24.19	O
ATOM	1125	C ASP A 299	40.675	15.174	65.677	1.00	20.59	C
ATOM	1126	O ASP A 299	40.052	15.092	64.635	1.00	21.48	O
ATOM	1127	N GLN A 300	41.753	15.936	65.826	1.00	20.59	N
ATOM	1129	CA GLN A 300	42.296	16.728	64.743	1.00	20.89	C
ATOM	1131	CB GLN A 300	43.520	17.505	65.209	1.00	20.98	C
ATOM	1134	CG GLN A 300	43.211	18.759	65.984	1.00	21.79	C
ATOM	1137	CD GLN A 300	44.471	19.457	66.511	1.00	24.15	C
ATOM	1138	OE1 GLN A 300	44.390	20.212	67.468	1.00	26.85	O
ATOM	1139	NE2 GLN A 300	45.623	19.205	65.889	1.00	23.70	N
ATOM	1142	C GLN A 300	42.686	15.836	63.587	1.00	20.82	C
ATOM	1143	O GLN A 300	42.343	16.119	62.439	1.00	21.20	O
ATOM	1144	N ILE A 301	43.395	14.753	63.910	1.00	20.32	N
ATOM	1146	CA ILE A 301	43.769	13.762	62.935	1.00	19.62	C
ATOM	1148	CB ILE A 301	44.767	12.748	63.539	1.00	20.10	C
ATOM	1150	CG1 ILE A 301	46.154	13.393	63.642	1.00	19.43	C
ATOM	1153	CD1 ILE A 301	47.094	12.652	64.553	1.00	20.19	C
ATOM	1157	CG2 ILE A 301	44.861	11.468	62.662	1.00	19.73	C
ATOM	1161	C ILE A 301	42.528	13.081	62.369	1.00	19.30	C
ATOM	1162	O ILE A 301	42.393	12.934	61.155	1.00	20.20	O
ATOM	1163	N ALA A 302	41.592	12.699	63.213	1.00	18.41	N
ATOM	1165	CA ALA A 302	40.423	11.988	62.705	1.00	17.85	C
ATOM	1167	CB ALA A 302	39.596	11.477	63.848	1.00	17.81	C
ATOM	1171	C ALA A 302	39.581	12.853	61.730	1.00	17.44	C
ATOM	1172	O ALA A 302	39.141	12.349	60.689	1.00	16.93	O
ATOM	1173	N LEU A 303	39.388	14.139	62.037	1.00	17.37	N
ATOM	1175	CA LEU A 303	38.604	15.043	61.173	1.00	17.82	C
ATOM	1177	CB LEU A 303	38.300	16.363	61.873	1.00	17.79	C
ATOM	1180	CG LEU A 303	37.480	16.301	63.158	1.00	18.21	C
ATOM	1182	CD1 LEU A 303	37.279	17.701	63.689	1.00	17.38	C
ATOM	1186	CD2 LEU A 303	36.154	15.590	62.942	1.00	19.92	C
ATOM	1190	C LEU A 303	39.301	15.371	59.849	1.00	18.27	C
ATOM	1191	O LEU A 303	38.660	15.510	58.837	1.00	17.83	O
ATOM	1192	N LEU A 304	40.621	15.498	59.873	1.00	19.62	N
ATOM	1194	CA LEU A 304	41.403	15.679	58.652	1.00	20.56	C
ATOM	1196	CB LEU A 304	42.834	16.034	59.006	1.00	20.86	C
ATOM	1199	CG LEU A 304	43.051	17.515	59.237	1.00	22.96	C
ATOM	1201	CD1 LEU A 304	44.480	17.746	59.691	1.00	24.33	C
ATOM	1205	CD2 LEU A 304	42.745	18.325	57.974	1.00	25.50	C
ATOM	1209	C LEU A 304	41.412	14.443	57.758	1.00	20.17	C

ATOM	1210	O	LEU A 304	41.271	14.540	56.560	1.00	20.16	O
ATOM	1211	N	LYS A 305	41.571	13.279	58.352	1.00	20.84	N
ATOM	1213	CA	LYS A 305	41.569	12.034	57.601	1.00	21.26	C
ATOM	1215	CB	LYS A 305	41.650	10.840	58.571	1.00	22.15	C
ATOM	1218	CG	LYS A 305	42.794	9.817	58.317	1.00	23.68	C
ATOM	1221	CD	LYS A 305	43.955	10.024	59.284	1.00	25.40	C
ATOM	1224	CE	LYS A 305	45.192	9.197	58.921	1.00	25.14	C
ATOM	1227	NZ	LYS A 305	45.648	8.320	60.048	1.00	25.27	N
ATOM	1231	C	LYS A 305	40.274	11.964	56.779	1.00	21.35	C
ATOM	1232	O	LYS A 305	40.280	11.754	55.545	1.00	21.00	O
ATOM	1233	N	ALA A 306	39.156	12.190	57.456	1.00	20.89	N
ATOM	1235	CA	ALA A 306	37.855	12.083	56.798	1.00	20.64	C
ATOM	1237	CB	ALA A 306	36.760	11.955	57.841	1.00	20.73	C
ATOM	1241	C	ALA A 306	37.569	13.242	55.838	1.00	20.23	C
ATOM	1242	O	ALA A 306	36.977	13.038	54.794	1.00	20.34	O
ATOM	1243	N	SER A 307	38.026	14.443	56.165	1.00	19.59	N
ATOM	1245	CA	SER A 307	37.675	15.630	55.391	1.00	19.91	C
ATOM	1247	CB	SER A 307	37.931	16.901	56.212	1.00	20.19	C
ATOM	1250	OG	SER A 307	36.768	17.182	56.937	1.00	25.77	O
ATOM	1252	C	SER A 307	38.480	15.773	54.130	1.00	19.11	C
ATOM	1253	O	SER A 307	38.041	16.433	53.190	1.00	18.68	O
ATOM	1254	N	THR A 308	39.696	15.237	54.138	1.00	17.89	N
ATOM	1256	CA	THR A 308	40.646	15.594	53.122	1.00	17.45	C
ATOM	1258	CB	THR A 308	41.983	14.910	53.345	1.00	17.47	C
ATOM	1260	OG1	THR A 308	42.680	15.539	54.440	1.00	15.82	O
ATOM	1262	CG2	THR A 308	42.886	15.176	52.174	1.00	17.07	C
ATOM	1266	C	THR A 308	40.124	15.315	51.721	1.00	17.43	C
ATOM	1267	O	THR A 308	40.159	16.190	50.878	1.00	17.33	O
ATOM	1268	N	ILE A 309	39.625	14.120	51.472	1.00	17.46	N
ATOM	1270	CA	ILE A 309	39.153	13.784	50.119	1.00	18.16	C
ATOM	1272	CB	ILE A 309	38.797	12.265	49.988	1.00	18.17	C
ATOM	1274	CG1	ILE A 309	38.542	11.879	48.541	1.00	18.77	C
ATOM	1277	CD1	ILE A 309	39.783	11.691	47.752	1.00	21.05	C
ATOM	1281	CG2	ILE A 309	37.551	11.885	50.817	1.00	17.38	C
ATOM	1285	C	ILE A 309	37.972	14.686	49.730	1.00	18.04	C
ATOM	1286	O	ILE A 309	37.879	15.150	48.598	1.00	17.64	O
ATOM	1287	N	GLU A 310	37.100	14.957	50.685	1.00	18.37	N
ATOM	1289	CA	GLU A 310	35.921	15.803	50.440	1.00	19.49	C
ATOM	1291	CB	GLU A 310	34.990	15.776	51.659	1.00	19.25	C
ATOM	1294	CG	GLU A 310	34.449	14.367	51.869	1.00	21.65	C
ATOM	1297	CD	GLU A 310	33.388	14.236	52.957	1.00	22.47	C
ATOM	1298	OE1	GLU A 310	32.837	15.275	53.350	1.00	23.37	O
ATOM	1299	OE2	GLU A 310	33.105	13.085	53.398	1.00	19.22	O
ATOM	1300	C	GLU A 310	36.289	17.244	50.070	1.00	19.19	C
ATOM	1301	O	GLU A 310	35.742	17.808	49.125	1.00	20.59	O
ATOM	1302	N	ILE A 311	37.238	17.825	50.790	1.00	18.33	N
ATOM	1304	CA	ILE A 311	37.696	19.178	50.504	1.00	17.23	C
ATOM	1306	CB	ILE A 311	38.582	19.669	51.637	1.00	16.82	C

ATOM	1308	CG1 ILE A 311	37.772	19.715	52.952	1.00	16.30	C
ATOM	1311	CD1 ILE A 311	38.615	19.946	54.200	1.00	16.45	C
ATOM	1315	CG2 ILE A 311	39.139	21.050	51.306	1.00	17.62	C
ATOM	1319	C ILE A 311	38.413	19.219	49.139	1.00	16.48	C
ATOM	1320	O ILE A 311	38.248	20.152	48.370	1.00	16.19	O
ATOM	1321	N MET A 312	39.145	18.166	48.830	1.00	16.06	N
ATOM	1323	CA MET A 312	39.837	18.042	47.574	1.00	16.26	C
ATOM	1325	CB MET A 312	40.615	16.729	47.479	1.00	16.63	C
ATOM	1328	CG MET A 312	41.881	16.692	48.231	1.00	19.96	C
ATOM	1331	SD MET A 312	42.969	15.273	47.818	1.00	24.73	S
ATOM	1332	CE MET A 312	43.078	15.386	46.128	1.00	17.57	C
ATOM	1336	C MET A 312	38.854	18.049	46.453	1.00	15.49	C
ATOM	1337	O MET A 312	39.137	18.627	45.440	1.00	14.65	O
ATOM	1338	N LEU A 313	37.727	17.356	46.620	1.00	15.38	N
ATOM	1340	CA LEU A 313	36.708	17.309	45.585	1.00	15.44	C
ATOM	1342	CB LEU A 313	35.601	16.308	45.907	1.00	15.59	C
ATOM	1345	CG LEU A 313	36.025	14.853	45.774	1.00	15.79	C
ATOM	1347	CD1 LEU A 313	35.081	13.994	46.579	1.00	17.22	C
ATOM	1351	CD2 LEU A 313	36.041	14.422	44.322	1.00	15.14	C
ATOM	1355	C LEU A 313	36.111	18.680	45.424	1.00	15.72	C
ATOM	1356	O LEU A 313	35.863	19.124	44.298	1.00	16.03	O
ATOM	1357	N LEU A 314	35.880	19.357	46.538	1.00	15.98	N
ATOM	1359	CA LEU A 314	35.398	20.745	46.485	1.00	16.72	C
ATOM	1361	CB LEU A 314	35.214	21.285	47.902	1.00	16.68	C
ATOM	1364	CG LEU A 314	33.861	21.706	48.451	1.00	19.36	C
ATOM	1366	CD1 LEU A 314	32.691	21.290	47.581	1.00	19.73	C
ATOM	1370	CD2 LEU A 314	33.653	21.229	49.917	1.00	19.76	C
ATOM	1374	C LEU A 314	36.374	21.630	45.704	1.00	17.15	C
ATOM	1375	O LEU A 314	35.960	22.385	44.832	1.00	16.98	O
ATOM	1376	N GLU A 315	37.675	21.513	46.002	1.00	17.91	N
ATOM	1378	CA GLU A 315	38.718	22.322	45.340	1.00	18.50	C
ATOM	1380	CB GLU A 315	40.090	22.136	46.037	1.00	18.99	C
ATOM	1383	CG GLU A 315	40.261	22.870	47.368	1.00	22.30	C
ATOM	1386	CD GLU A 315	39.999	24.370	47.260	1.00	28.75	C
ATOM	1387	OE1 GLU A 315	40.882	25.092	46.747	1.00	33.76	O
ATOM	1388	OE2 GLU A 315	38.883	24.824	47.645	1.00	33.52	O
ATOM	1389	C GLU A 315	38.824	21.969	43.846	1.00	17.84	C
ATOM	1390	O GLU A 315	39.072	22.830	42.978	1.00	17.24	O
ATOM	1391	N THR A 316	38.600	20.701	43.546	1.00	16.95	N
ATOM	1393	CA THR A 316	38.612	20.246	42.182	1.00	16.70	C
ATOM	1395	CB THR A 316	38.583	18.732	42.152	1.00	16.75	C
ATOM	1397	OG1 THR A 316	39.785	18.226	42.744	1.00	13.92	O
ATOM	1399	CG2 THR A 316	38.547	18.187	40.683	1.00	14.98	C
ATOM	1403	C THR A 316	37.418	20.824	41.428	1.00	18.11	C
ATOM	1404	O THR A 316	37.558	21.228	40.289	1.00	18.69	O
ATOM	1405	N ALA A 317	36.248	20.882	42.059	1.00	19.67	N
ATOM	1407	CA ALA A 317	35.057	21.445	41.406	1.00	20.76	C
ATOM	1409	CB ALA A 317	33.859	21.314	42.294	1.00	20.68	C

ATOM	1413	C	ALA A 317	35.284	22.908	41.038	1.00	21.54	C
ATOM	1414	O	ALA A 317	34.913	23.349	39.943	1.00	22.69	O
ATOM	1415	N	ARG A 318	35.934	23.623	41.947	1.00	22.02	N
ATOM	1417	CA	ARG A 318	36.313	25.033	41.796	1.00	22.80	C
ATOM	1419	CB	ARG A 318	37.094	25.465	43.038	1.00	23.87	C
ATOM	1422	CG	ARG A 318	36.573	26.602	43.856	1.00	27.49	C
ATOM	1425	CD	ARG A 318	37.322	26.668	45.163	1.00	33.60	C
ATOM	1428	NE	ARG A 318	37.035	27.843	45.987	1.00	39.43	N
ATOM	1430	CZ	ARG A 318	37.516	29.056	45.772	1.00	42.41	C
ATOM	1431	NH1	ARG A 318	38.325	29.293	44.736	1.00	44.52	N
ATOM	1434	NH2	ARG A 318	37.180	30.043	46.599	1.00	43.04	N
ATOM	1437	C	ARG A 318	37.230	25.307	40.615	1.00	21.79	C
ATOM	1438	O	ARG A 318	37.245	26.411	40.086	1.00	21.76	O
ATOM	1439	N	ARG A 319	38.044	24.317	40.259	1.00	20.98	N
ATOM	1441	CA	ARG A 319	39.023	24.421	39.171	1.00	20.20	C
ATOM	1443	CB	ARG A 319	40.313	23.710	39.568	1.00	20.14	C
ATOM	1446	CG	ARG A 319	41.082	24.401	40.647	1.00	20.81	C
ATOM	1449	CD	ARG A 319	42.014	23.486	41.412	1.00	23.29	C
ATOM	1452	NE	ARG A 319	42.885	24.247	42.294	1.00	24.81	N
ATOM	1454	CZ	ARG A 319	42.504	24.799	43.426	1.00	26.82	C
ATOM	1455	NH1	ARG A 319	41.265	24.659	43.852	1.00	28.73	N
ATOM	1458	NH2	ARG A 319	43.371	25.490	44.155	1.00	29.94	N
ATOM	1461	C	ARG A 319	38.538	23.826	37.850	1.00	19.77	C
ATOM	1462	O	ARG A 319	39.312	23.733	36.881	1.00	18.83	O
ATOM	1463	N	TYR A 320	37.283	23.387	37.835	1.00	19.44	N
ATOM	1465	CA	TYR A 320	36.613	22.945	36.616	1.00	19.71	C
ATOM	1467	CB	TYR A 320	35.365	22.116	36.956	1.00	19.39	C
ATOM	1470	CG	TYR A 320	34.596	21.588	35.769	1.00	18.73	C
ATOM	1471	CD1	TYR A 320	35.123	20.608	34.962	1.00	19.98	C
ATOM	1473	CE1	TYR A 320	34.416	20.112	33.868	1.00	20.60	C
ATOM	1475	CZ	TYR A 320	33.167	20.603	33.575	1.00	20.46	C
ATOM	1476	OH	TYR A 320	32.486	20.107	32.487	1.00	20.85	O
ATOM	1478	CE2	TYR A 320	32.611	21.578	34.370	1.00	19.65	C
ATOM	1480	CD2	TYR A 320	33.328	22.063	35.463	1.00	19.36	C
ATOM	1482	C	TYR A 320	36.239	24.163	35.769	1.00	20.30	C
ATOM	1483	O	TYR A 320	35.657	25.127	36.254	1.00	19.92	O
ATOM	1484	N	ASN A 321	36.613	24.115	34.501	1.00	21.61	N
ATOM	1486	CA	ASN A 321	36.217	25.110	33.536	1.00	22.66	C
ATOM	1488	CB	ASN A 321	37.409	25.484	32.663	1.00	23.12	C
ATOM	1491	CG	ASN A 321	37.143	26.698	31.800	1.00	22.84	C
ATOM	1492	OD1	ASN A 321	37.647	27.782	32.069	1.00	24.62	O
ATOM	1493	ND2	ASN A 321	36.348	26.524	30.771	1.00	20.92	N
ATOM	1496	C	ASN A 321	35.096	24.525	32.697	1.00	23.60	C
ATOM	1497	O	ASN A 321	35.313	23.608	31.918	1.00	23.48	O
ATOM	1498	N	HIS A 322	33.895	25.053	32.892	1.00	25.23	N
ATOM	1500	CA	HIS A 322	32.693	24.646	32.156	1.00	26.51	C
ATOM	1502	CB	HIS A 322	31.492	25.513	32.633	1.00	27.27	C
ATOM	1505	CG	HIS A 322	30.275	25.424	31.762	1.00	29.99	C

ATOM	1506	ND1 HIS A 322	29.601	24.240	31.535	1.00	32.54	N
ATOM	1508	CE1 HIS A 322	28.586	24.463	30.713	1.00	34.07	C
ATOM	1510	NE2 HIS A 322	28.571	25.750	30.404	1.00	34.11	N
ATOM	1512	CD2 HIS A 322	29.611	26.376	31.058	1.00	33.10	C
ATOM	1514	C HIS A 322	32.891	24.711	30.633	1.00	26.52	C
ATOM	1515	O HIS A 322	32.418	23.833	29.900	1.00	26.62	O
ATOM	1516	N GLU A 323	33.617	25.722	30.158	1.00	26.77	N
ATOM	1518	CA GLU A 323	33.748	25.980	28.712	1.00	26.91	C
ATOM	1520	CB GLU A 323	34.133	27.448	28.469	1.00	27.10	C
ATOM	1523	CG GLU A 323	33.148	28.221	27.591	1.00	28.96	C
ATOM	1526	CD GLU A 323	32.215	29.128	28.383	1.00	30.50	C
ATOM	1527	OE1 GLU A 323	32.234	29.079	29.638	1.00	30.87	O
ATOM	1528	OE2 GLU A 323	31.461	29.899	27.740	1.00	30.74	O
ATOM	1529	C GLU A 323	34.735	25.057	27.963	1.00	26.84	C
ATOM	1530	O GLU A 323	34.592	24.847	26.761	1.00	26.37	O
ATOM	1531	N THR A 324	35.739	24.534	28.670	1.00	26.82	N
ATOM	1533	CA THR A 324	36.721	23.609	28.099	1.00	26.57	C
ATOM	1535	CB THR A 324	38.190	24.074	28.416	1.00	26.67	C
ATOM	1537	OG1 THR A 324	38.467	24.031	29.833	1.00	25.10	O
ATOM	1539	CG2 THR A 324	38.416	25.538	28.015	1.00	26.34	C
ATOM	1543	C THR A 324	36.507	22.164	28.583	1.00	26.77	C
ATOM	1544	O THR A 324	37.143	21.254	28.075	1.00	26.83	O
ATOM	1545	N GLU A 325	35.598	21.962	29.538	1.00	26.97	N
ATOM	1547	CA GLU A 325	35.375	20.663	30.204	1.00	27.23	C
ATOM	1549	CB GLU A 325	34.689	19.675	29.234	1.00	27.47	C
ATOM	1552	CG GLU A 325	33.233	19.344	29.587	1.00	28.20	C
ATOM	1555	CD GLU A 325	32.398	18.812	28.408	1.00	29.54	C
ATOM	1556	OE1 GLU A 325	32.727	19.079	27.222	1.00	29.64	O
ATOM	1557	OE2 GLU A 325	31.383	18.126	28.668	1.00	29.96	O
ATOM	1558	C GLU A 325	36.669	20.077	30.829	1.00	27.23	C
ATOM	1559	O GLU A 325	36.837	18.854	30.934	1.00	27.55	O
ATOM	1560	N CYS A 326	37.563	20.971	31.256	1.00	26.85	N
ATOM	1562	CA CYS A 326	38.877	20.606	31.795	1.00	26.31	C
ATOM	1564	CB CYS A 326	39.991	21.098	30.864	1.00	26.31	C
ATOM	1567	SG CYS A 326	40.201	20.150	29.337	1.00	27.85	S
ATOM	1568	C CYS A 326	39.095	21.213	33.180	1.00	25.45	C
ATOM	1569	O CYS A 326	38.497	22.234	33.523	1.00	25.10	O
ATOM	1570	N ILE A 327	39.979	20.577	33.947	1.00	24.73	N
ATOM	1572	CA ILE A 327	40.265	20.934	35.332	1.00	24.35	C
ATOM	1574	CB ILE A 327	40.046	19.699	36.227	1.00	24.35	C
ATOM	1576	CG1 ILE A 327	38.560	19.368	36.321	1.00	24.03	C
ATOM	1579	CD1 ILE A 327	38.310	18.010	36.913	1.00	25.32	C
ATOM	1583	CG2 ILE A 327	40.634	19.908	37.604	1.00	23.73	C
ATOM	1587	C ILE A 327	41.711	21.398	35.429	1.00	24.23	C
ATOM	1588	O ILE A 327	42.596	20.722	34.925	1.00	23.97	O
ATOM	1589	N THR A 328	41.945	22.521	36.108	1.00	24.35	N
ATOM	1591	CA THR A 328	43.262	23.135	36.176	1.00	24.56	C
ATOM	1593	CB THR A 328	43.221	24.573	35.612	1.00	24.72	C

ATOM	1595	OG1 THR A 328	42.759	24.549	34.254	1.00	24.62	O
ATOM	1597	CG2 THR A 328	44.638	25.177	35.492	1.00	24.73	C
ATOM	1601	C THR A 328	43.827	23.146	37.601	1.00	25.13	C
ATOM	1602	O THR A 328	43.288	23.805	38.511	1.00	24.81	O
ATOM	1603	N PHE A 329	44.932	22.421	37.773	1.00	25.28	N
ATOM	1605	CA PHE A 329	45.690	22.429	39.013	1.00	25.63	C
ATOM	1607	CB PHE A 329	46.168	21.003	39.303	1.00	25.28	C
ATOM	1610	CG PHE A 329	45.058	19.981	39.249	1.00	23.41	C
ATOM	1611	CD1 PHE A 329	45.075	18.960	38.309	1.00	21.30	C
ATOM	1613	CE1 PHE A 329	44.050	18.042	38.242	1.00	20.33	C
ATOM	1615	CZ PHE A 329	42.978	18.125	39.127	1.00	20.10	C
ATOM	1617	CE2 PHE A 329	42.943	19.139	40.075	1.00	21.64	C
ATOM	1619	CD2 PHE A 329	43.976	20.068	40.128	1.00	21.59	C
ATOM	1621	C PHE A 329	46.859	23.413	38.923	1.00	27.08	C
ATOM	1622	O PHE A 329	47.514	23.529	37.879	1.00	27.03	O
ATOM	1623	N LEU A 330	47.086	24.162	39.999	1.00	28.88	N
ATOM	1625	CA LEU A 330	48.317	24.959	40.168	1.00	30.33	C
ATOM	1627	CB LEU A 330	49.543	24.024	40.284	1.00	30.46	C
ATOM	1630	CG LEU A 330	49.540	22.997	41.419	1.00	30.49	C
ATOM	1632	CD1 LEU A 330	50.613	21.962	41.199	1.00	31.98	C
ATOM	1636	CD2 LEU A 330	49.751	23.668	42.752	1.00	30.65	C
ATOM	1640	C LEU A 330	48.575	25.998	39.062	1.00	31.29	C
ATOM	1641	O LEU A 330	49.695	26.113	38.556	1.00	31.45	O
ATOM	1642	N LYS A 331	47.547	26.748	38.682	1.00	32.74	N
ATOM	1644	CA LYS A 331	47.668	27.785	37.632	1.00	33.73	C
ATOM	1646	CB LYS A 331	48.877	28.735	37.855	1.00	34.21	C
ATOM	1649	CG LYS A 331	49.110	29.269	39.284	1.00	35.79	C
ATOM	1652	CD LYS A 331	49.871	30.635	39.289	1.00	37.37	C
ATOM	1655	CE LYS A 331	49.066	31.744	40.025	1.00	38.72	C
ATOM	1658	NZ LYS A 331	49.126	33.069	39.324	1.00	38.94	N
ATOM	1662	C LYS A 331	47.805	27.247	36.211	1.00	33.94	C
ATOM	1663	O LYS A 331	47.389	27.907	35.269	1.00	34.65	O
ATOM	1664	N ASP A 332	48.401	26.070	36.047	1.00	34.28	N
ATOM	1666	CA ASP A 332	49.005	25.697	34.772	1.00	34.16	C
ATOM	1668	CB ASP A 332	50.527	25.843	34.872	1.00	34.39	C
ATOM	1671	CG ASP A 332	51.040	27.045	34.125	1.00	34.51	C
ATOM	1672	OD1 ASP A 332	50.978	27.038	32.876	1.00	34.87	O
ATOM	1673	OD2 ASP A 332	51.504	28.047	34.708	1.00	35.55	O
ATOM	1674	C ASP A 332	48.700	24.301	34.268	1.00	33.94	C
ATOM	1675	O ASP A 332	48.561	24.108	33.060	1.00	34.65	O
ATOM	1676	N PHE A 333	48.677	23.323	35.166	1.00	33.39	N
ATOM	1678	CA PHE A 333	48.485	21.929	34.775	1.00	32.85	C
ATOM	1680	CB PHE A 333	49.024	20.986	35.863	1.00	32.98	C
ATOM	1683	CG PHE A 333	50.520	21.059	36.031	1.00	33.52	C
ATOM	1684	CD1 PHE A 333	51.087	21.780	37.072	1.00	33.91	C
ATOM	1686	CE1 PHE A 333	52.471	21.862	37.213	1.00	33.43	C
ATOM	1688	CZ PHE A 333	53.286	21.229	36.318	1.00	33.89	C
ATOM	1690	CE2 PHE A 333	52.735	20.521	35.261	1.00	34.47	C

ATOM	1692	CD2 PHE A 333	51.358	20.440	35.121	1.00	34.19	C
ATOM	1694	C PHE A 333	47.022	21.665	34.501	1.00	31.92	C
ATOM	1695	O PHE A 333	46.222	21.708	35.410	1.00	31.94	O
ATOM	1696	N THR A 334	46.688	21.383	33.245	1.00	31.20	N
ATOM	1698	CA THR A 334	45.300	21.254	32.796	1.00	30.75	C
ATOM	1700	CB THR A 334	45.014	22.318	31.727	1.00	30.62	C
ATOM	1702	OG1 THR A 334	45.207	23.613	32.303	1.00	30.79	O
ATOM	1704	CG2 THR A 334	43.545	22.322	31.316	1.00	30.43	C
ATOM	1708	C THR A 334	45.023	19.864	32.242	1.00	30.23	C
ATOM	1709	O THR A 334	45.861	19.304	31.551	1.00	30.23	O
ATOM	1710	N TYR A 335	43.842	19.320	32.544	1.00	29.92	N
ATOM	1712	CA TYR A 335	43.501	17.931	32.205	1.00	29.62	C
ATOM	1714	CB TYR A 335	43.867	16.986	33.366	1.00	29.47	C
ATOM	1717	CG TYR A 335	45.325	17.092	33.729	1.00	29.58	C
ATOM	1718	CD1 TYR A 335	45.737	17.850	34.823	1.00	29.29	C
ATOM	1720	CE1 TYR A 335	47.079	17.973	35.134	1.00	29.82	C
ATOM	1722	CZ TYR A 335	48.024	17.362	34.325	1.00	29.99	C
ATOM	1723	OH TYR A 335	49.358	17.476	34.607	1.00	31.94	O
ATOM	1725	CE2 TYR A 335	47.640	16.635	33.219	1.00	29.71	C
ATOM	1727	CD2 TYR A 335	46.302	16.508	32.922	1.00	29.36	C
ATOM	1729	C TYR A 335	42.030	17.762	31.864	1.00	29.38	C
ATOM	1730	O TYR A 335	41.177	18.458	32.405	1.00	29.15	O
ATOM	1731	N SER A 336	41.745	16.813	30.976	1.00	29.15	N
ATOM	1733	CA SER A 336	40.384	16.524	30.541	1.00	28.85	C
ATOM	1735	CB SER A 336	40.307	16.527	29.021	1.00	28.49	C
ATOM	1738	OG SER A 336	41.107	15.491	28.485	1.00	27.98	O
ATOM	1740	C SER A 336	39.981	15.163	31.063	1.00	28.83	C
ATOM	1741	O SER A 336	40.824	14.420	31.552	1.00	28.78	O
ATOM	1742	N LYS A 337	38.695	14.839	30.934	1.00	28.88	N
ATOM	1744	CA LYS A 337	38.168	13.519	31.298	1.00	28.86	C
ATOM	1746	CB LYS A 337	36.742	13.336	30.764	1.00	28.93	C
ATOM	1749	CG LYS A 337	35.739	12.823	31.796	1.00	30.85	C
ATOM	1752	CD LYS A 337	34.407	12.361	31.151	1.00	32.64	C
ATOM	1755	CE LYS A 337	33.456	13.529	30.806	1.00	33.98	C
ATOM	1758	NZ LYS A 337	32.125	13.458	31.537	1.00	35.47	N
ATOM	1762	C LYS A 337	39.053	12.385	30.776	1.00	28.68	C
ATOM	1763	O LYS A 337	39.286	11.404	31.492	1.00	28.62	O
ATOM	1764	N ASP A 338	39.537	12.524	29.536	1.00	28.16	N
ATOM	1766	CA ASP A 338	40.370	11.496	28.921	1.00	27.94	C
ATOM	1768	CB ASP A 338	40.661	11.800	27.435	1.00	28.12	C
ATOM	1771	CG ASP A 338	39.498	11.428	26.502	1.00	28.23	C
ATOM	1772	OD1 ASP A 338	38.407	11.062	26.993	1.00	28.81	O
ATOM	1773	OD2 ASP A 338	39.585	11.489	25.256	1.00	27.66	O
ATOM	1774	C ASP A 338	41.679	11.352	29.690	1.00	27.53	C
ATOM	1775	O ASP A 338	42.093	10.237	30.009	1.00	27.27	O
ATOM	1776	N ASP A 339	42.324	12.478	29.990	1.00	26.98	N
ATOM	1778	CA ASP A 339	43.580	12.449	30.743	1.00	26.51	C
ATOM	1780	CB ASP A 339	44.098	13.864	31.040	1.00	26.35	C

ATOM	1783	CG ASP A 339	44.531	14.617	29.784	1.00	26.67	C
ATOM	1784	OD1 ASP A 339	45.108	14.010	28.844	1.00	27.93	O
ATOM	1785	OD2 ASP A 339	44.339	15.837	29.650	1.00	26.18	O
ATOM	1786	C ASP A 339	43.463	11.634	32.040	1.00	26.10	C
ATOM	1787	O ASP A 339	44.391	10.906	32.392	1.00	26.08	O
ATOM	1788	N PHE A 340	42.328	11.725	32.732	1.00	25.51	N
ATOM	1790	CA PHE A 340	42.149	10.965	33.964	1.00	25.32	C
ATOM	1792	CB PHE A 340	40.967	11.492	34.795	1.00	24.90	C
ATOM	1795	CG PHE A 340	41.175	12.888	35.305	1.00	22.96	C
ATOM	1796	CD1 PHE A 340	40.553	13.966	34.697	1.00	22.02	C
ATOM	1798	CE1 PHE A 340	40.758	15.257	35.153	1.00	22.03	C
ATOM	1800	CZ PHE A 340	41.598	15.487	36.229	1.00	20.58	C
ATOM	1802	CE2 PHE A 340	42.226	14.421	36.839	1.00	20.74	C
ATOM	1804	CD2 PHE A 340	42.016	13.128	36.371	1.00	21.10	C
ATOM	1806	C PHE A 340	42.022	9.466	33.682	1.00	25.66	C
ATOM	1807	O PHE A 340	42.466	8.650	34.483	1.00	25.91	O
ATOM	1808	N HIS A 341	41.435	9.106	32.550	1.00	26.18	N
ATOM	1810	CA HIS A 341	41.343	7.700	32.148	1.00	26.87	C
ATOM	1812	CB HIS A 341	40.295	7.513	31.045	1.00	27.05	C
ATOM	1815	CG HIS A 341	39.884	6.085	30.849	1.00	28.71	C
ATOM	1816	ND1 HIS A 341	39.126	5.394	31.771	1.00	29.94	N
ATOM	1818	CE1 HIS A 341	38.922	4.162	31.335	1.00	31.00	C
ATOM	1820	NE2 HIS A 341	39.523	4.027	30.165	1.00	30.91	N
ATOM	1822	CD2 HIS A 341	40.134	5.215	29.838	1.00	30.45	C
ATOM	1824	C HIS A 341	42.684	7.113	31.685	1.00	26.76	C
ATOM	1825	O HIS A 341	42.984	5.947	31.954	1.00	26.77	O
ATOM	1826	N ARG A 342	43.486	7.925	31.003	1.00	26.70	N
ATOM	1828	CA ARG A 342	44.794	7.493	30.513	1.00	26.94	C
ATOM	1830	CB ARG A 342	45.382	8.543	29.558	1.00	26.90	C
ATOM	1833	CG ARG A 342	44.664	8.622	28.210	1.00	28.19	C
ATOM	1836	CD ARG A 342	45.229	9.672	27.226	1.00	29.91	C
ATOM	1839	NE ARG A 342	44.476	10.935	27.264	1.00	31.33	N
ATOM	1841	CZ ARG A 342	44.632	11.955	26.412	1.00	31.59	C
ATOM	1842	NH1 ARG A 342	45.525	11.902	25.427	1.00	31.20	N
ATOM	1845	NH2 ARG A 342	43.886	13.049	26.554	1.00	31.62	N
ATOM	1848	C ARG A 342	45.778	7.202	31.656	1.00	26.76	C
ATOM	1849	O ARG A 342	46.798	6.566	31.423	1.00	26.70	O
ATOM	1850	N ALA A 343	45.470	7.675	32.872	1.00	26.62	N
ATOM	1852	CA ALA A 343	46.280	7.431	34.079	1.00	26.39	C
ATOM	1854	CB ALA A 343	46.349	8.695	34.939	1.00	26.48	C
ATOM	1858	C ALA A 343	45.776	6.249	34.924	1.00	26.40	C
ATOM	1859	O ALA A 343	46.353	5.932	35.966	1.00	26.25	O
ATOM	1860	N GLY A 344	44.691	5.620	34.481	1.00	26.50	N
ATOM	1862	CA GLY A 344	44.267	4.332	35.001	1.00	26.55	C
ATOM	1865	C GLY A 344	43.280	4.423	36.136	1.00	26.67	C
ATOM	1866	O GLY A 344	43.183	3.504	36.951	1.00	27.06	O
ATOM	1867	N LEU A 345	42.551	5.530	36.197	1.00	26.53	N
ATOM	1869	CA LEU A 345	41.463	5.667	37.153	1.00	26.53	C

ATOM	1871	CB	LEU	A	345	41.267	7.149	37.516	1.00	26.53	C
ATOM	1874	CG	LEU	A	345	42.518	7.858	38.072	1.00	24.62	C
ATOM	1876	CD1	LEU	A	345	42.305	9.352	38.144	1.00	24.46	C
ATOM	1880	CD2	LEU	A	345	42.897	7.335	39.436	1.00	23.50	C
ATOM	1884	C	LEU	A	345	40.181	5.026	36.586	1.00	26.63	C
ATOM	1885	O	LEU	A	345	39.898	5.147	35.395	1.00	26.63	O
ATOM	1886	N	GLN	A	346	39.454	4.294	37.434	1.00	26.91	N
ATOM	1888	CA	GLN	A	346	38.105	3.792	37.127	1.00	26.83	C
ATOM	1890	CB	GLN	A	346	37.339	3.473	38.426	1.00	27.27	C
ATOM	1893	CG	GLN	A	346	37.770	2.240	39.251	1.00	28.32	C
ATOM	1896	CD	GLN	A	346	36.835	1.986	40.479	1.00	29.29	C
ATOM	1897	OE1	GLN	A	346	36.459	0.842	40.753	1.00	31.84	O
ATOM	1898	NE2	GLN	A	346	36.460	3.046	41.182	1.00	27.17	N
ATOM	1901	C	GLN	A	346	37.288	4.867	36.416	1.00	26.31	C
ATOM	1902	O	GLN	A	346	37.438	6.055	36.704	1.00	26.77	O
ATOM	1903	N	VAL	A	347	36.389	4.454	35.536	1.00	25.81	N
ATOM	1905	CA	VAL	A	347	35.368	5.358	34.976	1.00	25.38	C
ATOM	1907	CB	VAL	A	347	34.753	4.766	33.669	1.00	25.51	C
ATOM	1909	CG1	VAL	A	347	33.790	5.742	32.998	1.00	25.31	C
ATOM	1913	CG2	VAL	A	347	35.874	4.396	32.704	1.00	25.57	C
ATOM	1917	C	VAL	A	347	34.304	5.642	36.057	1.00	24.93	C
ATOM	1918	O	VAL	A	347	33.792	6.757	36.161	1.00	23.88	O
ATOM	1919	N	GLU	A	348	34.045	4.636	36.898	1.00	24.60	N
ATOM	1921	CA	GLU	A	348	33.146	4.756	38.063	1.00	24.72	C
ATOM	1923	CB	GLU	A	348	33.019	3.390	38.770	1.00	24.91	C
ATOM	1926	CG	GLU	A	348	32.539	2.243	37.885	1.00	26.71	C
ATOM	1929	CD	GLU	A	348	33.685	1.488	37.206	1.00	29.71	C
ATOM	1930	OE1	GLU	A	348	33.582	1.233	35.991	1.00	31.00	O
ATOM	1931	OE2	GLU	A	348	34.701	1.160	37.869	1.00	31.93	O
ATOM	1932	C	GLU	A	348	33.583	5.808	39.107	1.00	23.86	C
ATOM	1933	O	GLU	A	348	32.829	6.137	40.029	1.00	23.87	O
ATOM	1934	N	PHE	A	349	34.816	6.285	38.974	1.00	23.14	N
ATOM	1936	CA	PHE	A	349	35.403	7.307	39.840	1.00	22.80	C
ATOM	1938	CB	PHE	A	349	36.854	6.903	40.134	1.00	23.01	C
ATOM	1941	CG	PHE	A	349	37.583	7.793	41.085	1.00	22.39	C
ATOM	1942	CD1	PHE	A	349	37.088	8.050	42.350	1.00	22.17	C
ATOM	1944	CE1	PHE	A	349	37.780	8.853	43.218	1.00	20.60	C
ATOM	1946	CZ	PHE	A	349	39.013	9.375	42.856	1.00	21.91	C
ATOM	1948	CE2	PHE	A	349	39.533	9.127	41.614	1.00	22.28	C
ATOM	1950	CD2	PHE	A	349	38.818	8.336	40.726	1.00	23.79	C
ATOM	1952	C	PHE	A	349	35.371	8.639	39.116	1.00	22.30	C
ATOM	1953	O	PHE	A	349	34.953	9.628	39.669	1.00	21.90	O
ATOM	1954	N	ILE	A	350	35.796	8.635	37.857	1.00	22.24	N
ATOM	1956	CA	ILE	A	350	35.895	9.848	37.060	1.00	22.04	C
ATOM	1958	CB	ILE	A	350	36.575	9.537	35.722	1.00	21.70	C
ATOM	1960	CG1	ILE	A	350	38.079	9.313	35.922	1.00	22.13	C
ATOM	1963	CD1	ILE	A	350	38.756	8.515	34.775	1.00	21.47	C
ATOM	1967	CG2	ILE	A	350	36.332	10.663	34.718	1.00	21.28	C

ATOM	1971	C	ILE A 350	34.558	10.515	36.782	1.00	22.33	C
ATOM	1972	O	ILE A 350	34.434	11.731	36.887	1.00	22.59	O
ATOM	1973	N	ASN A 351	33.572	9.732	36.358	1.00	22.84	N
ATOM	1975	CA	ASN A 351	32.302	10.302	35.907	1.00	22.42	C
ATOM	1977	CB	ASN A 351	31.433	9.243	35.211	1.00	22.60	C
ATOM	1980	CG	ASN A 351	31.905	8.937	33.789	1.00	23.53	C
ATOM	1981	OD1	ASN A 351	32.687	9.687	33.203	1.00	25.37	O
ATOM	1982	ND2	ASN A 351	31.424	7.836	33.232	1.00	23.29	N
ATOM	1985	C	ASN A 351	31.558	11.005	37.045	1.00	22.06	C
ATOM	1986	O	ASN A 351	31.069	12.114	36.843	1.00	22.38	O
ATOM	1987	N	PRO A 352	31.464	10.388	38.228	1.00	21.48	N
ATOM	1988	CA	PRO A 352	30.887	11.074	39.397	1.00	20.83	C
ATOM	1990	CB	PRO A 352	30.914	10.006	40.491	1.00	20.76	C
ATOM	1993	CG	PRO A 352	30.930	8.732	39.765	1.00	21.63	C
ATOM	1996	CD	PRO A 352	31.813	8.990	38.550	1.00	21.39	C
ATOM	1999	C	PRO A 352	31.645	12.322	39.856	1.00	20.50	C
ATOM	2000	O	PRO A 352	30.977	13.206	40.375	1.00	19.87	O
ATOM	2001	N	ILE A 353	32.966	12.412	39.672	1.00	19.96	N
ATOM	2003	CA	ILE A 353	33.689	13.627	40.076	1.00	19.92	C
ATOM	2005	CB	ILE A 353	35.236	13.428	40.135	1.00	19.61	C
ATOM	2007	CG1	ILE A 353	35.686	12.406	41.190	1.00	20.31	C
ATOM	2010	CD1	ILE A 353	34.657	11.997	42.210	1.00	22.76	C
ATOM	2014	CG2	ILE A 353	35.906	14.762	40.367	1.00	19.04	C
ATOM	2018	C	ILE A 353	33.379	14.758	39.099	1.00	19.71	C
ATOM	2019	O	ILE A 353	33.261	15.903	39.505	1.00	19.66	O
ATOM	2020	N	PHE A 354	33.280	14.435	37.812	1.00	19.64	N
ATOM	2022	CA	PHE A 354	32.886	15.431	36.785	1.00	19.92	C
ATOM	2024	CB	PHE A 354	33.175	14.938	35.370	1.00	19.71	C
ATOM	2027	CG	PHE A 354	34.513	15.328	34.876	1.00	20.80	C
ATOM	2028	CD1	PHE A 354	35.625	14.553	35.182	1.00	23.54	C
ATOM	2030	CE1	PHE A 354	36.896	14.919	34.739	1.00	24.39	C
ATOM	2032	CZ	PHE A 354	37.056	16.066	33.983	1.00	24.23	C
ATOM	2034	CE2	PHE A 354	35.946	16.849	33.685	1.00	23.89	C
ATOM	2036	CD2	PHE A 354	34.685	16.477	34.140	1.00	22.42	C
ATOM	2038	C	PHE A 354	31.424	15.884	36.877	1.00	19.67	C
ATOM	2039	O	PHE A 354	31.126	17.052	36.613	1.00	19.35	O
ATOM	2040	N	GLU A 355	30.541	14.976	37.286	1.00	19.54	N
ATOM	2042	CA	GLU A 355	29.141	15.314	37.550	1.00	19.97	C
ATOM	2044	CB	GLU A 355	28.337	14.053	37.852	1.00	20.00	C
ATOM	2047	CG	GLU A 355	27.688	13.441	36.635	1.00	22.53	C
ATOM	2050	CD	GLU A 355	27.848	11.929	36.543	1.00	26.22	C
ATOM	2051	OE1	GLU A 355	27.853	11.411	35.386	1.00	26.82	O
ATOM	2052	OE2	GLU A 355	27.946	11.267	37.610	1.00	27.50	O
ATOM	2053	C	GLU A 355	29.036	16.284	38.734	1.00	19.93	C
ATOM	2054	O	GLU A 355	28.311	17.264	38.684	1.00	19.80	O
ATOM	2055	N	PHE A 356	29.794	16.011	39.785	1.00	19.56	N
ATOM	2057	CA	PHE A 356	29.799	16.853	40.966	1.00	19.66	C
ATOM	2059	CB	PHE A 356	30.591	16.167	42.081	1.00	19.44	C

ATOM	2062	CG	PHE A 356	30.659	16.955	43.348	1.00	20.91	C
ATOM	2063	CD1	PHE A 356	29.577	16.978	44.223	1.00	20.43	C
ATOM	2065	CE1	PHE A 356	29.647	17.694	45.404	1.00	19.47	C
ATOM	2067	CZ	PHE A 356	30.809	18.396	45.720	1.00	18.74	C
ATOM	2069	CE2	PHE A 356	31.881	18.384	44.855	1.00	19.01	C
ATOM	2071	CD2	PHE A 356	31.811	17.672	43.678	1.00	19.31	C
ATOM	2073	C	PHE A 356	30.373	18.223	40.625	1.00	19.40	C
ATOM	2074	O	PHE A 356	29.825	19.225	40.990	1.00	18.28	O
ATOM	2075	N	SER A 357	31.457	18.249	39.870	1.00	20.60	N
ATOM	2077	CA	SER A 357	32.128	19.499	39.503	1.00	20.59	C
ATOM	2079	CB	SER A 357	33.338	19.227	38.602	1.00	20.29	C
ATOM	2082	OG	SER A 357	34.369	18.580	39.329	1.00	20.02	O
ATOM	2084	C	SER A 357	31.194	20.445	38.806	1.00	20.65	C
ATOM	2085	O	SER A 357	31.099	21.606	39.160	1.00	21.92	O
ATOM	2086	N	ARG A 358	30.488	19.958	37.815	1.00	21.00	N
ATOM	2088	CA	ARG A 358	29.605	20.841	37.041	1.00	21.25	C
ATOM	2090	CB	ARG A 358	29.238	20.203	35.708	1.00	21.20	C
ATOM	2093	CG	ARG A 358	28.561	18.881	35.802	1.00	22.25	C
ATOM	2096	CD	ARG A 358	28.071	18.403	34.441	1.00	23.15	C
ATOM	2099	NE	ARG A 358	29.192	17.895	33.667	1.00	23.60	N
ATOM	2101	CZ	ARG A 358	29.508	16.607	33.533	1.00	26.50	C
ATOM	2102	NH1	ARG A 358	28.770	15.650	34.106	1.00	26.64	N
ATOM	2105	NH2	ARG A 358	30.558	16.272	32.783	1.00	28.29	N
ATOM	2108	C	ARG A 358	28.361	21.285	37.816	1.00	21.19	C
ATOM	2109	O	ARG A 358	27.888	22.421	37.655	1.00	20.90	O
ATOM	2110	N	ALA A 359	27.845	20.399	38.664	1.00	21.30	N
ATOM	2112	CA	ALA A 359	26.770	20.738	39.595	1.00	21.67	C
ATOM	2114	CB	ALA A 359	26.329	19.479	40.375	1.00	21.76	C
ATOM	2118	C	ALA A 359	27.213	21.831	40.576	1.00	22.18	C
ATOM	2119	O	ALA A 359	26.457	22.711	40.925	1.00	21.77	O
ATOM	2120	N	MET A 360	28.457	21.767	41.001	1.00	23.01	N
ATOM	2122	CA	MET A 360	29.009	22.748	41.919	1.00	24.64	C
ATOM	2124	CB	MET A 360	30.361	22.254	42.446	1.00	24.59	C
ATOM	2127	CG	MET A 360	30.641	22.625	43.881	1.00	27.53	C
ATOM	2130	SD	MET A 360	29.338	22.222	45.065	1.00	26.30	S
ATOM	2131	CE	MET A 360	29.857	20.934	45.508	1.00	30.19	C
ATOM	2135	C	MET A 360	29.148	24.121	41.258	1.00	25.19	C
ATOM	2136	O	MET A 360	28.926	25.162	41.894	1.00	25.74	O
ATOM	2137	N	ARG A 361	29.480	24.126	39.972	1.00	25.84	N
ATOM	2139	CA	ARG A 361	29.584	25.371	39.224	1.00	26.35	C
ATOM	2141	CB	ARG A 361	30.249	25.117	37.869	1.00	27.12	C
ATOM	2144	CG	ARG A 361	31.701	24.623	37.971	1.00	29.89	C
ATOM	2147	CD	ARG A 361	32.662	25.573	38.673	1.00	31.97	C
ATOM	2150	NE	ARG A 361	33.039	26.712	37.829	1.00	33.46	N
ATOM	2152	CZ	ARG A 361	33.860	27.693	38.219	1.00	35.94	C
ATOM	2153	NH1	ARG A 361	34.416	27.690	39.435	1.00	36.21	N
ATOM	2156	NH2	ARG A 361	34.127	28.692	37.390	1.00	37.44	N
ATOM	2159	C	ARG A 361	28.239	26.054	38.996	1.00	26.11	C

ATOM	2160	O	ARG A 361	28.179	27.284	38.839	1.00	26.26	O
ATOM	2161	N	ARG A 362	27.159	25.276	38.939	1.00	25.48	N
ATOM	2163	CA	ARG A 362	25.834	25.863	38.729	1.00	25.07	C
ATOM	2165	CB	ARG A 362	24.771	24.804	38.378	1.00	25.05	C
ATOM	2168	CG	ARG A 362	24.727	24.487	36.901	1.00	26.61	C
ATOM	2171	CD	ARG A 362	23.614	23.522	36.494	1.00	30.55	C
ATOM	2174	NE	ARG A 362	24.090	22.127	36.484	1.00	33.30	N
ATOM	2176	CZ	ARG A 362	23.737	21.173	37.352	1.00	33.74	C
ATOM	2177	NH1	ARG A 362	22.882	21.411	38.352	1.00	34.38	N
ATOM	2180	NH2	ARG A 362	24.258	19.964	37.220	1.00	33.96	N
ATOM	2183	C	ARG A 362	25.467	26.641	39.971	1.00	24.29	C
ATOM	2184	O	ARG A 362	24.923	27.726	39.888	1.00	24.82	O
ATOM	2185	N	LEU A 363	25.813	26.093	41.126	1.00	24.09	N
ATOM	2187	CA	LEU A 363	25.515	26.735	42.390	1.00	23.70	C
ATOM	2189	CB	LEU A 363	25.927	25.841	43.562	1.00	24.14	C
ATOM	2192	CG	LEU A 363	24.872	25.174	44.445	1.00	25.78	C
ATOM	2194	CD1	LEU A 363	25.540	24.801	45.755	1.00	26.68	C
ATOM	2198	CD2	LEU A 363	23.653	26.039	44.721	1.00	26.04	C
ATOM	2202	C	LEU A 363	26.223	28.081	42.502	1.00	22.89	C
ATOM	2203	O	LEU A 363	25.760	28.946	43.218	1.00	22.75	O
ATOM	2204	N	GLY A 364	27.355	28.251	41.826	1.00	22.35	N
ATOM	2206	CA	GLY A 364	28.092	29.509	41.865	1.00	21.60	C
ATOM	2209	C	GLY A 364	28.424	30.050	43.262	1.00	20.93	C
ATOM	2210	O	GLY A 364	28.151	31.187	43.573	1.00	20.48	O
ATOM	2211	N	LEU A 365	29.015	29.239	44.112	1.00	20.65	N
ATOM	2213	CA	LEU A 365	29.409	29.712	45.439	1.00	20.77	C
ATOM	2215	CB	LEU A 365	29.970	28.563	46.257	1.00	20.89	C
ATOM	2218	CG	LEU A 365	29.053	27.368	46.534	1.00	21.09	C
ATOM	2220	CD1	LEU A 365	29.655	26.540	47.624	1.00	23.59	C
ATOM	2224	CD2	LEU A 365	27.722	27.838	46.955	1.00	23.26	C
ATOM	2228	C	LEU A 365	30.449	30.830	45.348	1.00	20.31	C
ATOM	2229	O	LEU A 365	31.290	30.801	44.466	1.00	20.83	O
ATOM	2230	N	ASP A 366	30.390	31.819	46.241	1.00	19.34	N
ATOM	2232	CA	ASP A 366	31.450	32.813	46.304	1.00	18.83	C
ATOM	2234	CB	ASP A 366	30.904	34.235	46.543	1.00	18.87	C
ATOM	2237	CG	ASP A 366	30.328	34.442	47.922	1.00	19.79	C
ATOM	2238	OD1	ASP A 366	30.648	33.664	48.849	1.00	22.64	O
ATOM	2239	OD2	ASP A 366	29.547	35.383	48.175	1.00	18.75	O
ATOM	2240	C	ASP A 366	32.511	32.369	47.311	1.00	18.05	C
ATOM	2241	O	ASP A 366	32.373	31.318	47.902	1.00	17.47	O
ATOM	2242	N	ASP A 367	33.577	33.145	47.458	1.00	18.22	N
ATOM	2244	CA	ASP A 367	34.732	32.766	48.286	1.00	18.77	C
ATOM	2246	CB	ASP A 367	35.792	33.879	48.276	1.00	19.56	C
ATOM	2249	CG	ASP A 367	36.570	33.986	46.950	1.00	21.86	C
ATOM	2250	OD1	ASP A 367	36.252	33.299	45.969	1.00	26.50	O
ATOM	2251	OD2	ASP A 367	37.556	34.750	46.808	1.00	29.03	O
ATOM	2252	C	ASP A 367	34.328	32.482	49.740	1.00	18.55	C
ATOM	2253	O	ASP A 367	34.810	31.527	50.340	1.00	18.77	O

ATOM	2254	N	ALA A 368	33.436	33.304	50.291	1.00	17.60	N
ATOM	2256	CA	ALA A 368	32.965	33.127	51.656	1.00	17.92	C
ATOM	2258	CB	ALA A 368	32.127	34.347	52.106	1.00	17.88	C
ATOM	2262	C	ALA A 368	32.145	31.847	51.823	1.00	17.92	C
ATOM	2263	O	ALA A 368	32.291	31.149	52.819	1.00	17.06	O
ATOM	2264	N	GLU A 369	31.273	31.572	50.848	1.00	17.90	N
ATOM	2266	CA	GLU A 369	30.428	30.393	50.849	1.00	17.89	C
ATOM	2268	CB	GLU A 369	29.392	30.448	49.719	1.00	17.89	C
ATOM	2271	CG	GLU A 369	28.197	31.315	50.072	1.00	17.84	C
ATOM	2274	CD	GLU A 369	27.368	31.747	48.887	1.00	17.92	C
ATOM	2275	OE1	GLU A 369	26.183	32.053	49.081	1.00	19.99	O
ATOM	2276	OE2	GLU A 369	27.877	31.780	47.764	1.00	16.22	O
ATOM	2277	C	GLU A 369	31.273	29.120	50.784	1.00	17.98	C
ATOM	2278	O	GLU A 369	31.062	28.239	51.611	1.00	18.41	O
ATOM	2279	N	TYR A 370	32.237	29.043	49.860	1.00	17.69	N
ATOM	2281	CA	TYR A 370	33.179	27.919	49.811	1.00	18.46	C
ATOM	2283	CB	TYR A 370	34.263	28.083	48.713	1.00	19.44	C
ATOM	2286	CG	TYR A 370	33.924	27.365	47.453	1.00	23.14	C
ATOM	2287	CD1	TYR A 370	33.476	28.072	46.322	1.00	30.57	C
ATOM	2289	CE1	TYR A 370	33.109	27.405	45.129	1.00	31.46	C
ATOM	2291	CZ	TYR A 370	33.183	26.031	45.089	1.00	30.45	C
ATOM	2292	OH	TYR A 370	32.856	25.383	43.933	1.00	34.50	O
ATOM	2294	CE2	TYR A 370	33.619	25.317	46.197	1.00	29.61	C
ATOM	2296	CD2	TYR A 370	34.001	25.994	47.374	1.00	25.53	C
ATOM	2298	C	TYR A 370	33.898	27.711	51.121	1.00	18.02	C
ATOM	2299	O	TYR A 370	33.884	26.603	51.653	1.00	18.12	O
ATOM	2300	N	ALA A 371	34.570	28.759	51.604	1.00	17.46	N
ATOM	2302	CA	ALA A 371	35.332	28.705	52.860	1.00	17.72	C
ATOM	2304	CB	ALA A 371	35.915	30.075	53.187	1.00	17.37	C
ATOM	2308	C	ALA A 371	34.483	28.192	54.030	1.00	17.86	C
ATOM	2309	O	ALA A 371	34.867	27.264	54.744	1.00	17.61	O
ATOM	2310	N	LEU A 372	33.300	28.770	54.184	1.00	18.15	N
ATOM	2312	CA	LEU A 372	32.379	28.367	55.235	1.00	18.10	C
ATOM	2314	CB	LEU A 372	31.168	29.301	55.288	1.00	18.44	C
ATOM	2317	CG	LEU A 372	31.388	30.655	55.966	1.00	17.97	C
ATOM	2319	CD1	LEU A 372	30.261	31.616	55.581	1.00	18.92	C
ATOM	2323	CD2	LEU A 372	31.503	30.529	57.490	1.00	17.39	C
ATOM	2327	C	LEU A 372	31.915	26.919	55.066	1.00	18.84	C
ATOM	2328	O	LEU A 372	31.794	26.203	56.054	1.00	18.91	O
ATOM	2329	N	LEU A 373	31.675	26.473	53.839	1.00	19.14	N
ATOM	2331	CA	LEU A 373	31.293	25.074	53.601	1.00	19.70	C
ATOM	2333	CB	LEU A 373	31.049	24.809	52.126	1.00	19.70	C
ATOM	2336	CG	LEU A 373	29.782	24.100	51.665	1.00	21.26	C
ATOM	2338	CD1	LEU A 373	30.074	23.402	50.324	1.00	22.41	C
ATOM	2342	CD2	LEU A 373	29.130	23.141	52.650	1.00	20.53	C
ATOM	2346	C	LEU A 373	32.383	24.129	54.043	1.00	20.13	C
ATOM	2347	O	LEU A 373	32.129	23.098	54.647	1.00	20.93	O
ATOM	2348	N	ILE A 374	33.614	24.476	53.736	1.00	20.60	N

ATOM	2350	CA	ILE A 374	34.753	23.657	54.113	1.00	20.44	C
ATOM	2352	CB	ILE A 374	36.018	24.226	53.480	1.00	20.73	C
ATOM	2354	CG1	ILE A 374	36.007	23.898	51.988	1.00	20.20	C
ATOM	2357	CD1	ILE A 374	37.030	24.646	51.130	1.00	20.32	C
ATOM	2361	CG2	ILE A 374	37.272	23.623	54.158	1.00	23.14	C
ATOM	2365	C	ILE A 374	34.890	23.516	55.626	1.00	20.57	C
ATOM	2366	O	ILE A 374	35.044	22.411	56.116	1.00	22.25	O
ATOM	2367	N	ALA A 375	34.835	24.615	56.374	1.00	20.16	N
ATOM	2369	CA	ALA A 375	34.859	24.573	57.829	1.00	19.27	C
ATOM	2371	CB	ALA A 375	34.780	25.972	58.370	1.00	19.60	C
ATOM	2375	C	ALA A 375	33.705	23.743	58.391	1.00	19.34	C
ATOM	2376	O	ALA A 375	33.849	23.045	59.387	1.00	19.63	O
ATOM	2377	N	ILE A 376	32.540	23.828	57.767	1.00	19.42	N
ATOM	2379	CA	ILE A 376	31.390	23.066	58.227	1.00	18.80	C
ATOM	2381	CB	ILE A 376	30.092	23.502	57.515	1.00	17.92	C
ATOM	2383	CG1	ILE A 376	29.576	24.820	58.079	1.00	17.49	C
ATOM	2386	CD1	ILE A 376	28.585	25.567	57.139	1.00	16.73	C
ATOM	2390	CG2	ILE A 376	28.994	22.466	57.695	1.00	19.11	C
ATOM	2394	C	ILE A 376	31.683	21.603	57.971	1.00	19.50	C
ATOM	2395	O	ILE A 376	31.306	20.773	58.774	1.00	20.11	O
ATOM	2396	N	ASN A 377	32.336	21.294	56.847	1.00	20.52	N
ATOM	2398	CA	ASN A 377	32.680	19.915	56.469	1.00	20.93	C
ATOM	2400	CB	ASN A 377	33.307	19.872	55.085	1.00	21.62	C
ATOM	2403	CG	ASN A 377	33.690	18.453	54.641	1.00	22.72	C
ATOM	2404	OD1	ASN A 377	32.979	17.837	53.867	1.00	22.99	O
ATOM	2405	ND2	ASN A 377	34.812	17.947	55.141	1.00	20.87	N
ATOM	2408	C	ASN A 377	33.671	19.331	57.433	1.00	21.11	C
ATOM	2409	O	ASN A 377	33.517	18.205	57.869	1.00	21.98	O
ATOM	2410	N	ILE A 378	34.672	20.121	57.783	1.00	21.41	N
ATOM	2412	CA	ILE A 378	35.681	19.716	58.758	1.00	21.93	C
ATOM	2414	CB	ILE A 378	36.697	20.853	58.960	1.00	21.86	C
ATOM	2416	CG1	ILE A 378	37.633	20.936	57.757	1.00	21.82	C
ATOM	2419	CD1	ILE A 378	38.474	22.216	57.746	1.00	23.11	C
ATOM	2423	CG2	ILE A 378	37.536	20.629	60.215	1.00	23.23	C
ATOM	2427	C	ILE A 378	35.086	19.287	60.094	1.00	21.90	C
ATOM	2428	O	ILE A 378	35.470	18.250	60.642	1.00	22.53	O
ATOM	2429	N	PHE A 379	34.168	20.086	60.630	1.00	21.90	N
ATOM	2431	CA	PHE A 379	33.632	19.825	61.970	1.00	21.69	C
ATOM	2433	CB	PHE A 379	33.313	21.140	62.711	1.00	21.31	C
ATOM	2436	CG	PHE A 379	34.536	21.991	62.992	1.00	21.12	C
ATOM	2437	CD1	PHE A 379	34.639	23.276	62.499	1.00	21.16	C
ATOM	2439	CE1	PHE A 379	35.771	24.028	62.745	1.00	21.97	C
ATOM	2441	CZ	PHE A 379	36.806	23.504	63.484	1.00	21.44	C
ATOM	2443	CE2	PHE A 379	36.715	22.241	63.981	1.00	19.78	C
ATOM	2445	CD2	PHE A 379	35.587	21.490	63.733	1.00	21.14	C
ATOM	2447	C	PHE A 379	32.398	18.934	61.907	1.00	21.30	C
ATOM	2448	O	PHE A 379	31.353	19.317	62.396	1.00	21.90	O
ATOM	2449	N	SER A 380	32.517	17.758	61.310	1.00	20.97	N

ATOM	2451	CA	SER A 380	31.407	16.796	61.282	1.00	21.44	C
ATOM	2453	CB	SER A 380	31.307	16.061	59.944	1.00	21.03	C
ATOM	2456	OG	SER A 380	31.393	16.992	58.889	1.00	23.07	O
ATOM	2458	C	SER A 380	31.656	15.814	62.382	1.00	21.42	C
ATOM	2459	O	SER A 380	32.626	15.075	62.340	1.00	21.37	O
ATOM	2460	N	ALA A 381	30.781	15.804	63.376	1.00	22.21	N
ATOM	2462	CA	ALA A 381	31.019	15.021	64.579	1.00	22.72	C
ATOM	2464	CB	ALA A 381	30.066	15.461	65.667	1.00	23.12	C
ATOM	2468	C	ALA A 381	30.879	13.518	64.339	1.00	23.30	C
ATOM	2469	O	ALA A 381	31.284	12.728	65.200	1.00	24.29	O
ATOM	2470	N	ASP A 382	30.309	13.117	63.195	1.00	23.11	N
ATOM	2472	CA	ASP A 382	30.071	11.692	62.904	1.00	23.18	C
ATOM	2474	CB	ASP A 382	28.734	11.504	62.202	1.00	23.26	C
ATOM	2477	CG	ASP A 382	28.698	12.110	60.819	1.00	25.57	C
ATOM	2478	OD1	ASP A 382	29.572	12.946	60.478	1.00	24.08	O
ATOM	2479	OD2	ASP A 382	27.781	11.837	60.010	1.00	29.55	O
ATOM	2480	C	ASP A 382	31.180	10.986	62.111	1.00	23.20	C
ATOM	2481	O	ASP A 382	30.988	9.859	61.646	1.00	23.89	O
ATOM	2482	N	ARG A 383	32.347	11.628	61.974	1.00	22.57	N
ATOM	2484	CA	ARG A 383	33.500	11.008	61.312	1.00	21.50	C
ATOM	2486	CB	ARG A 383	34.667	11.995	61.218	1.00	21.27	C
ATOM	2489	CG	ARG A 383	34.340	13.312	60.528	1.00	21.52	C
ATOM	2492	CD	ARG A 383	33.831	13.113	59.123	1.00	21.58	C
ATOM	2495	NE	ARG A 383	33.970	14.264	58.250	1.00	21.75	N
ATOM	2497	CZ	ARG A 383	33.653	14.244	56.958	1.00	22.05	C
ATOM	2498	NH1	ARG A 383	33.204	13.131	56.393	1.00	19.43	N
ATOM	2501	NH2	ARG A 383	33.781	15.343	56.222	1.00	23.34	N
ATOM	2504	C	ARG A 383	33.936	9.810	62.129	1.00	21.13	C
ATOM	2505	O	ARG A 383	33.719	9.770	63.334	1.00	21.47	O
ATOM	2506	N	PRO A 384	34.564	8.834	61.502	1.00	20.88	N
ATOM	2507	CA	PRO A 384	35.176	7.721	62.241	1.00	21.10	C
ATOM	2509	CB	PRO A 384	35.890	6.914	61.146	1.00	21.32	C
ATOM	2512	CG	PRO A 384	35.280	7.338	59.855	1.00	21.47	C
ATOM	2515	CD	PRO A 384	34.712	8.700	60.046	1.00	20.67	C
ATOM	2518	C	PRO A 384	36.222	8.149	63.278	1.00	21.38	C
ATOM	2519	O	PRO A 384	37.054	9.026	63.002	1.00	21.60	O
ATOM	2520	N	ASN A 385	36.188	7.513	64.445	1.00	21.55	N
ATOM	2522	CA	ASN A 385	37.226	7.665	65.488	1.00	21.22	C
ATOM	2524	CB	ASN A 385	38.619	7.375	64.905	1.00	21.33	C
ATOM	2527	CG	ASN A 385	38.708	5.977	64.310	1.00	20.84	C
ATOM	2528	OD1	ASN A 385	38.458	5.013	65.008	1.00	22.86	O
ATOM	2529	ND2	ASN A 385	39.017	5.867	63.026	1.00	17.53	N
ATOM	2532	C	ASN A 385	37.233	8.991	66.253	1.00	20.97	C
ATOM	2533	O	ASN A 385	38.190	9.282	66.922	1.00	20.77	O
ATOM	2534	N	VAL A 386	36.158	9.774	66.177	1.00	20.83	N
ATOM	2536	CA	VAL A 386	36.042	10.996	66.964	1.00	20.53	C
ATOM	2538	CB	VAL A 386	35.027	11.967	66.340	1.00	20.29	C
ATOM	2540	CG1	VAL A 386	34.755	13.131	67.264	1.00	20.90	C

ATOM	2544	CG2 VAL A 386	35.552	12.486	64.983	1.00	20.31	C
ATOM	2548	C VAL A 386	35.673	10.695	68.430	1.00	20.67	C
ATOM	2549	O VAL A 386	34.735	9.950	68.720	1.00	20.08	O
ATOM	2550	N GLN A 387	36.410	11.309	69.344	1.00	20.66	N
ATOM	2552	CA GLN A 387	36.303	11.018	70.771	1.00	21.25	C
ATOM	2554	CB GLN A 387	37.668	11.084	71.458	1.00	21.61	C
ATOM	2557	CG GLN A 387	38.837	10.601	70.615	1.00	23.93	C
ATOM	2560	CD GLN A 387	39.596	9.483	71.255	1.00	25.34	C
ATOM	2561	OE1 GLN A 387	38.994	8.517	71.705	1.00	29.43	O
ATOM	2562	NE2 GLN A 387	40.924	9.598	71.292	1.00	27.17	N
ATOM	2565	C GLN A 387	35.391	12.007	71.455	1.00	20.57	C
ATOM	2566	O GLN A 387	34.745	11.659	72.413	1.00	20.97	O
ATOM	2567	N GLU A 388	35.335	13.227	70.945	1.00	20.17	N
ATOM	2569	CA GLU A 388	34.566	14.301	71.551	1.00	20.02	C
ATOM	2571	CB GLU A 388	35.526	15.372	72.037	1.00	20.38	C
ATOM	2574	CG GLU A 388	36.601	14.797	72.937	1.00	21.88	C
ATOM	2577	CD GLU A 388	37.233	15.860	73.794	1.00	24.28	C
ATOM	2578	OE1 GLU A 388	37.975	16.680	73.239	1.00	27.15	O
ATOM	2579	OE2 GLU A 388	36.976	15.885	75.008	1.00	25.68	O
ATOM	2580	C GLU A 388	33.591	14.868	70.532	1.00	19.21	C
ATOM	2581	O GLU A 388	33.710	16.011	70.126	1.00	18.78	O
ATOM	2582	N PRO A 389	32.632	14.056	70.107	1.00	19.33	N
ATOM	2583	CA PRO A 389	31.691	14.477	69.063	1.00	19.55	C
ATOM	2585	CB PRO A 389	30.836	13.208	68.812	1.00	20.13	C
ATOM	2588	CG PRO A 389	30.992	12.348	70.066	1.00	19.37	C
ATOM	2591	CD PRO A 389	32.374	12.668	70.564	1.00	19.24	C
ATOM	2594	C PRO A 389	30.838	15.675	69.482	1.00	19.37	C
ATOM	2595	O PRO A 389	30.576	16.559	68.644	1.00	19.74	O
ATOM	2596	N GLY A 390	30.420	15.718	70.742	1.00	19.03	N
ATOM	2598	CA GLY A 390	29.702	16.866	71.267	1.00	18.88	C
ATOM	2601	C GLY A 390	30.465	18.182	71.091	1.00	19.43	C
ATOM	2602	O GLY A 390	29.873	19.229	70.755	1.00	19.60	O
ATOM	2603	N ARG A 391	31.770	18.158	71.346	1.00	19.20	N
ATOM	2605	CA ARG A 391	32.605	19.344	71.106	1.00	19.79	C
ATOM	2607	CB ARG A 391	33.995	19.139	71.680	1.00	20.00	C
ATOM	2610	CG ARG A 391	33.984	18.973	73.171	1.00	23.73	C
ATOM	2613	CD ARG A 391	35.374	18.976	73.748	1.00	28.60	C
ATOM	2616	NE ARG A 391	36.026	20.260	73.495	1.00	31.62	N
ATOM	2618	CZ ARG A 391	37.335	20.439	73.329	1.00	33.77	C
ATOM	2619	NH1 ARG A 391	38.191	19.412	73.360	1.00	33.29	N
ATOM	2622	NH2 ARG A 391	37.788	21.673	73.139	1.00	34.43	N
ATOM	2625	C ARG A 391	32.737	19.725	69.632	1.00	19.01	C
ATOM	2626	O ARG A 391	32.721	20.900	69.304	1.00	18.13	O
ATOM	2627	N VAL A 392	32.890	18.725	68.757	1.00	19.26	N
ATOM	2629	CA VAL A 392	33.046	18.963	67.328	1.00	19.48	C
ATOM	2631	CB VAL A 392	33.342	17.673	66.560	1.00	19.79	C
ATOM	2633	CG1 VAL A 392	33.239	17.903	65.035	1.00	19.28	C
ATOM	2637	CG2 VAL A 392	34.711	17.159	66.908	1.00	19.99	C

ATOM	2641	C	VAL A 392	31.777	19.603	66.769	1.00	19.62	C
ATOM	2642	O	VAL A 392	31.831	20.535	65.999	1.00	19.42	O
ATOM	2643	N	GLU A 393	30.642	19.100	67.198	1.00	20.52	N
ATOM	2645	CA	GLU A 393	29.347	19.608	66.793	1.00	21.87	C
ATOM	2647	CB	GLU A 393	28.248	18.672	67.314	1.00	22.09	C
ATOM	2650	CG	GLU A 393	26.863	19.094	66.918	1.00	25.31	C
ATOM	2653	CD	GLU A 393	25.910	17.906	66.851	1.00	31.55	C
ATOM	2654	OE1	GLU A 393	25.791	17.278	65.761	1.00	35.01	O
ATOM	2655	OE2	GLU A 393	25.299	17.600	67.889	1.00	29.86	O
ATOM	2656	C	GLU A 393	29.106	21.018	67.326	1.00	21.32	C
ATOM	2657	O	GLU A 393	28.547	21.851	66.618	1.00	21.71	O
ATOM	2658	N	ALA A 394	29.513	21.266	68.568	1.00	20.57	N
ATOM	2660	CA	ALA A 394	29.487	22.622	69.140	1.00	20.63	C
ATOM	2662	CB	ALA A 394	29.963	22.621	70.604	1.00	20.34	C
ATOM	2666	C	ALA A 394	30.311	23.610	68.336	1.00	20.23	C
ATOM	2667	O	ALA A 394	29.905	24.737	68.177	1.00	21.04	O
ATOM	2668	N	LEU A 395	31.461	23.190	67.822	1.00	20.50	N
ATOM	2670	CA	LEU A 395	32.321	24.064	66.995	1.00	20.42	C
ATOM	2672	CB	LEU A 395	33.735	23.485	66.916	1.00	20.95	C
ATOM	2675	CG	LEU A 395	34.556	23.430	68.201	1.00	21.40	C
ATOM	2677	CD1	LEU A 395	35.821	22.577	68.001	1.00	22.05	C
ATOM	2681	CD2	LEU A 395	34.909	24.806	68.674	1.00	22.08	C
ATOM	2685	C	LEU A 395	31.814	24.286	65.564	1.00	20.04	C
ATOM	2686	O	LEU A 395	32.072	25.331	64.962	1.00	20.55	O
ATOM	2687	N	GLN A 396	31.114	23.299	65.022	1.00	19.81	N
ATOM	2689	CA	GLN A 396	30.460	23.425	63.726	1.00	19.89	C
ATOM	2691	CB	GLN A 396	29.816	22.092	63.308	1.00	19.46	C
ATOM	2694	CG	GLN A 396	29.349	22.087	61.880	1.00	20.05	C
ATOM	2697	CD	GLN A 396	28.547	20.868	61.512	1.00	20.76	C
ATOM	2698	OE1	GLN A 396	28.946	20.093	60.639	1.00	20.87	O
ATOM	2699	NE2	GLN A 396	27.415	20.701	62.155	1.00	19.29	N
ATOM	2702	C	GLN A 396	29.350	24.466	63.745	1.00	20.14	C
ATOM	2703	O	GLN A 396	29.106	25.131	62.739	1.00	19.96	O
ATOM	2704	N	GLN A 397	28.666	24.573	64.883	1.00	20.08	N
ATOM	2706	CA	GLN A 397	27.486	25.435	65.013	1.00	20.81	C
ATOM	2708	CB	GLN A 397	26.953	25.404	66.461	1.00	21.11	C
ATOM	2711	CG	GLN A 397	25.829	26.375	66.731	1.00	22.41	C
ATOM	2714	CD	GLN A 397	25.275	26.284	68.143	1.00	25.12	C
ATOM	2715	OE1	GLN A 397	25.037	27.319	68.798	1.00	27.27	O
ATOM	2716	NE2	GLN A 397	25.059	25.069	68.614	1.00	24.96	N
ATOM	2719	C	GLN A 397	27.676	26.899	64.538	1.00	19.94	C
ATOM	2720	O	GLN A 397	26.883	27.373	63.738	1.00	20.40	O
ATOM	2721	N	PRO A 398	28.677	27.616	65.020	1.00	18.90	N
ATOM	2722	CA	PRO A 398	28.857	29.018	64.614	1.00	19.15	C
ATOM	2724	CB	PRO A 398	30.007	29.512	65.507	1.00	18.85	C
ATOM	2727	CG	PRO A 398	30.743	28.277	65.909	1.00	20.07	C
ATOM	2730	CD	PRO A 398	29.657	27.204	66.034	1.00	19.69	C
ATOM	2733	C	PRO A 398	29.167	29.251	63.119	1.00	18.91	C

60

ATOM	2734	O	PRO A 398	28.857	30.307	62.568	1.00	17.18	O
ATOM	2735	N	TYR A 399	29.774	28.259	62.484	1.00	19.69	N
ATOM	2737	CA	TYR A 399	30.012	28.289	61.040	1.00	19.26	C
ATOM	2739	CB	TYR A 399	31.049	27.222	60.671	1.00	19.22	C
ATOM	2742	CG	TYR A 399	32.415	27.587	61.189	1.00	18.15	C
ATOM	2743	CD1	TYR A 399	32.936	26.967	62.292	1.00	17.16	C
ATOM	2745	CE1	TYR A 399	34.165	27.340	62.790	1.00	19.02	C
ATOM	2747	CZ	TYR A 399	34.894	28.332	62.166	1.00	18.35	C
ATOM	2748	OH	TYR A 399	36.116	28.686	62.661	1.00	17.87	O
ATOM	2750	CE2	TYR A 399	34.388	28.977	61.073	1.00	18.04	C
ATOM	2752	CD2	TYR A 399	33.148	28.613	60.602	1.00	18.73	C
ATOM	2754	C	TYR A 399	28.701	28.069	60.293	1.00	19.80	C
ATOM	2755	O	TYR A 399	28.463	28.654	59.241	1.00	19.18	O
ATOM	2756	N	VAL A 400	27.837	27.225	60.843	1.00	20.31	N
ATOM	2758	CA	VAL A 400	26.541	27.011	60.241	1.00	20.60	C
ATOM	2760	CB	VAL A 400	25.830	25.790	60.824	1.00	21.06	C
ATOM	2762	CG1	VAL A 400	24.389	25.645	60.234	1.00	21.52	C
ATOM	2766	CG2	VAL A 400	26.612	24.533	60.510	1.00	22.13	C
ATOM	2770	C	VAL A 400	25.700	28.279	60.390	1.00	20.94	C
ATOM	2771	O	VAL A 400	25.079	28.693	59.414	1.00	20.92	O
ATOM	2772	N	GLU A 401	25.682	28.885	61.585	1.00	20.87	N
ATOM	2774	CA	GLU A 401	24.985	30.170	61.810	1.00	21.54	C
ATOM	2776	CB	GLU A 401	25.136	30.691	63.261	1.00	21.83	C
ATOM	2779	CG	GLU A 401	24.475	29.824	64.338	1.00	25.56	C
ATOM	2782	CD	GLU A 401	24.990	30.068	65.784	1.00	29.57	C
ATOM	2783	OE1	GLU A 401	25.925	30.868	65.976	1.00	31.30	O
ATOM	2784	OE2	GLU A 401	24.467	29.437	66.753	1.00	31.62	O
ATOM	2785	C	GLU A 401	25.499	31.246	60.872	1.00	20.55	C
ATOM	2786	O	GLU A 401	24.730	32.022	60.316	1.00	20.34	O
ATOM	2787	N	ALA A 402	26.809	31.288	60.677	1.00	20.10	N
ATOM	2789	CA	ALA A 402	27.407	32.335	59.848	1.00	19.57	C
ATOM	2791	CB	ALA A 402	28.900	32.391	60.054	1.00	19.31	C
ATOM	2795	C	ALA A 402	27.058	32.159	58.374	1.00	19.18	C
ATOM	2796	O	ALA A 402	26.887	33.131	57.651	1.00	19.24	O
ATOM	2797	N	LEU A 403	26.913	30.920	57.936	1.00	19.59	N
ATOM	2799	CA	LEU A 403	26.528	30.647	56.568	1.00	20.27	C
ATOM	2801	CB	LEU A 403	26.823	29.204	56.201	1.00	20.37	C
ATOM	2804	CG	LEU A 403	26.459	28.814	54.774	1.00	21.69	C
ATOM	2806	CD1	LEU A 403	27.279	29.594	53.750	1.00	21.45	C
ATOM	2810	CD2	LEU A 403	26.646	27.298	54.582	1.00	24.93	C
ATOM	2814	C	LEU A 403	25.052	30.962	56.353	1.00	20.94	C
ATOM	2815	O	LEU A 403	24.664	31.443	55.290	1.00	21.36	O
ATOM	2816	N	LEU A 404	24.234	30.697	57.362	1.00	21.38	N
ATOM	2818	CA	LEU A 404	22.818	31.015	57.297	1.00	22.19	C
ATOM	2820	CB	LEU A 404	22.133	30.528	58.566	1.00	22.76	C
ATOM	2823	CG	LEU A 404	20.627	30.693	58.686	1.00	25.06	C
ATOM	2825	CD1	LEU A 404	19.934	30.227	57.408	1.00	27.19	C
ATOM	2829	CD2	LEU A 404	20.151	29.882	59.900	1.00	27.37	C

61

ATOM	2833	C	LEU A 404	22.625	32.534	57.122	1.00	21.70	C
ATOM	2834	O	LEU A 404	22.002	32.975	56.168	1.00	21.60	O
ATOM	2835	N	SER A 405	23.195	33.319	58.031	1.00	21.30	N
ATOM	2837	CA	SER A 405	23.169	34.778	57.943	1.00	20.95	C
ATOM	2839	CB	SER A 405	23.898	35.380	59.123	1.00	21.13	C
ATOM	2842	OG	SER A 405	23.248	34.989	60.299	1.00	23.32	O
ATOM	2844	C	SER A 405	23.796	35.324	56.679	1.00	20.23	C
ATOM	2845	O	SER A 405	23.283	36.246	56.110	1.00	20.11	O
ATOM	2846	N	TYR A 406	24.905	34.757	56.235	1.00	20.19	N
ATOM	2848	CA	TYR A 406	25.554	35.275	55.037	1.00	20.26	C
ATOM	2850	CB	TYR A 406	26.921	34.616	54.808	1.00	20.03	C
ATOM	2853	CG	TYR A 406	27.677	35.166	53.628	1.00	17.48	C
ATOM	2854	CD1	TYR A 406	28.569	36.203	53.766	1.00	17.11	C
ATOM	2856	CE1	TYR A 406	29.248	36.732	52.656	1.00	15.31	C
ATOM	2858	CZ	TYR A 406	29.050	36.154	51.417	1.00	14.97	C
ATOM	2859	OH	TYR A 406	29.700	36.603	50.291	1.00	12.86	O
ATOM	2861	CE2	TYR A 406	28.182	35.116	51.282	1.00	14.49	C
ATOM	2863	CD2	TYR A 406	27.509	34.625	52.377	1.00	15.94	C
ATOM	2865	C	TYR A 406	24.624	35.120	53.829	1.00	20.61	C
ATOM	2866	O	TYR A 406	24.381	36.074	53.095	1.00	19.54	O
ATOM	2867	N	THR A 407	24.073	33.924	53.652	1.00	21.38	N
ATOM	2869	CA	THR A 407	23.150	33.680	52.531	1.00	21.34	C
ATOM	2871	CB	THR A 407	22.887	32.191	52.342	1.00	20.99	C
ATOM	2873	OG1	THR A 407	22.439	31.609	53.558	1.00	19.37	O
ATOM	2875	CG2	THR A 407	24.193	31.441	52.047	1.00	21.26	C
ATOM	2879	C	THR A 407	21.852	34.474	52.632	1.00	22.27	C
ATOM	2880	O	THR A 407	21.327	34.862	51.619	1.00	21.70	O
ATOM	2881	N	ARG A 408	21.359	34.748	53.840	1.00	24.06	N
ATOM	2883	CA	ARG A 408	20.162	35.581	54.018	1.00	25.87	C
ATOM	2885	CB	ARG A 408	19.713	35.615	55.484	1.00	26.81	C
ATOM	2888	CG	ARG A 408	18.703	34.539	55.906	1.00	31.03	C
ATOM	2891	CD	ARG A 408	18.843	34.084	57.386	1.00	36.58	C
ATOM	2894	NE	ARG A 408	17.578	34.128	58.139	1.00	40.80	N
ATOM	2896	CZ	ARG A 408	16.691	33.125	58.214	1.00	45.77	C
ATOM	2897	NH1	ARG A 408	16.903	31.965	57.576	1.00	48.06	N
ATOM	2900	NH2	ARG A 408	15.573	33.278	58.927	1.00	46.91	N
ATOM	2903	C	ARG A 408	20.412	37.026	53.568	1.00	26.33	C
ATOM	2904	O	ARG A 408	19.545	37.660	52.972	1.00	25.83	O
ATOM	2905	N	ILE A 409	21.600	37.548	53.862	1.00	27.14	N
ATOM	2907	CA	ILE A 409	21.931	38.933	53.524	1.00	27.95	C
ATOM	2909	CB	ILE A 409	22.948	39.502	54.544	1.00	28.07	C
ATOM	2911	CG1	ILE A 409	22.378	39.380	55.969	1.00	28.89	C
ATOM	2914	CD1	ILE A 409	23.421	39.279	57.074	1.00	29.04	C
ATOM	2918	CG2	ILE A 409	23.287	40.965	54.207	1.00	27.74	C
ATOM	2922	C	ILE A 409	22.435	39.106	52.069	1.00	28.50	C
ATOM	2923	O	ILE A 409	22.057	40.064	51.386	1.00	27.67	O
ATOM	2924	N	LYS A 410	23.261	38.167	51.608	1.00	29.16	N
ATOM	2926	CA	LYS A 410	23.895	38.251	50.302	1.00	30.15	C

ATOM	2928	CB	LYS	A 410	25.247	37.506	50.311	1.00	30.82	C
ATOM	2931	CG	LYS	A 410	26.062	37.547	48.967	1.00	33.21	C
ATOM	2934	CD	LYS	A 410	26.430	36.112	48.413	1.00	35.52	C
ATOM	2937	CE	LYS	A 410	26.557	36.067	46.877	1.00	36.92	C
ATOM	2940	NZ	LYS	A 410	25.850	34.904	46.256	1.00	37.82	N
ATOM	2944	C	LYS	A 410	22.970	37.748	49.193	1.00	30.35	C
ATOM	2945	O	LYS	A 410	23.070	38.214	48.058	1.00	30.24	O
ATOM	2946	N	ARG	A 411	22.051	36.833	49.509	1.00	30.70	N
ATOM	2948	CA	ARG	A 411	21.067	36.362	48.517	1.00	31.19	C
ATOM	2950	CB	ARG	A 411	21.466	34.987	47.970	1.00	31.83	C
ATOM	2953	CG	ARG	A 411	22.694	34.988	47.043	1.00	35.36	C
ATOM	2956	CD	ARG	A 411	23.101	33.573	46.543	1.00	40.08	C
ATOM	2959	NE	ARG	A 411	23.290	33.462	45.081	1.00	42.67	N
ATOM	2961	CZ	ARG	A 411	22.310	33.545	44.163	1.00	43.67	C
ATOM	2962	NH1	ARG	A 411	21.040	33.758	44.521	1.00	43.02	N
ATOM	2965	NH2	ARG	A 411	22.609	33.417	42.869	1.00	43.56	N
ATOM	2968	C	ARG	A 411	19.656	36.304	49.105	1.00	30.61	C
ATOM	2969	O	ARG	A 411	19.099	35.236	49.317	1.00	29.92	O
ATOM	2970	N	PRO	A 412	19.063	37.461	49.349	1.00	30.71	N
ATOM	2971	CA	PRO	A 412	17.830	37.526	50.136	1.00	30.88	C
ATOM	2973	CB	PRO	A 412	17.654	39.027	50.371	1.00	30.84	C
ATOM	2976	CG	PRO	A 412	18.399	39.681	49.265	1.00	30.56	C
ATOM	2979	CD	PRO	A 412	19.507	38.787	48.886	1.00	30.44	C
ATOM	2982	C	PRO	A 412	16.590	36.922	49.444	1.00	31.46	C
ATOM	2983	O	PRO	A 412	15.656	36.514	50.154	1.00	31.62	O
ATOM	2984	N	GLN	A 413	16.586	36.855	48.109	1.00	31.46	N
ATOM	2986	CA	GLN	A 413	15.450	36.308	47.363	1.00	31.54	C
ATOM	2988	CB	GLN	A 413	15.047	37.265	46.225	1.00	31.75	C
ATOM	2991	CG	GLN	A 413	14.186	38.451	46.677	1.00	32.45	C
ATOM	2994	CD	GLN	A 413	12.697	38.121	46.787	1.00	33.94	C
ATOM	2995	OE1	GLN	A 413	11.901	38.467	45.903	1.00	34.73	O
ATOM	2996	NE2	GLN	A 413	12.315	37.478	47.885	1.00	34.89	N
ATOM	2999	C	GLN	A 413	15.690	34.878	46.829	1.00	31.36	C
ATOM	3000	O	GLN	A 413	14.913	34.383	46.013	1.00	31.27	O
ATOM	3001	N	ASP	A 414	16.754	34.220	47.305	1.00	31.27	N
ATOM	3003	CA	ASP	A 414	16.985	32.786	47.074	1.00	30.71	C
ATOM	3005	CB	ASP	A 414	18.280	32.560	46.309	1.00	31.02	C
ATOM	3008	CG	ASP	A 414	18.531	31.093	46.011	1.00	31.49	C
ATOM	3009	OD1	ASP	A 414	17.565	30.318	45.914	1.00	30.43	O
ATOM	3010	OD2	ASP	A 414	19.675	30.626	45.858	1.00	35.74	O
ATOM	3011	C	ASP	A 414	17.011	32.013	48.395	1.00	29.99	C
ATOM	3012	O	ASP	A 414	18.053	31.757	48.972	1.00	30.08	O
ATOM	3013	N	GLN	A 415	15.825	31.637	48.835	1.00	29.76	N
ATOM	3015	CA	GLN	A 415	15.558	30.998	50.121	1.00	29.41	C
ATOM	3017	CB	GLN	A 415	14.022	30.850	50.207	1.00	30.33	C
ATOM	3020	CG	GLN	A 415	13.436	30.284	51.497	1.00	33.12	C
ATOM	3023	CD	GLN	A 415	11.907	30.459	51.562	1.00	36.96	C
ATOM	3024	OE1	GLN	A 415	11.336	30.617	52.650	1.00	40.03	O

ATOM	3025	NE2	GLN A 415	11.248	30.432	50.397	1.00	38.38	N
ATOM	3028	C	GLN A 415	16.252	29.639	50.270	1.00	27.79	C
ATOM	3029	O	GLN A 415	16.727	29.292	51.340	1.00	27.83	O
ATOM	3030	N	LEU A 416	16.335	28.887	49.179	1.00	26.66	N
ATOM	3032	CA	LEU A 416	16.873	27.521	49.191	1.00	25.86	C
ATOM	3034	CB	LEU A 416	16.172	26.680	48.121	1.00	25.70	C
ATOM	3037	CG	LEU A 416	14.650	26.622	48.262	1.00	25.24	C
ATOM	3039	CD1	LEU A 416	14.069	25.860	47.119	1.00	24.23	C
ATOM	3043	CD2	LEU A 416	14.276	25.986	49.577	1.00	25.64	C
ATOM	3047	C	LEU A 416	18.381	27.417	48.970	1.00	25.39	C
ATOM	3048	O	LEU A 416	18.920	26.315	48.870	1.00	25.50	O
ATOM	3049	N	ARG A 417	19.040	28.562	48.846	1.00	24.30	N
ATOM	3051	CA	ARG A 417	20.480	28.648	48.700	1.00	23.93	C
ATOM	3053	CB	ARG A 417	20.904	30.109	48.968	1.00	24.83	C
ATOM	3056	CG	ARG A 417	21.901	30.674	48.016	1.00	26.61	C
ATOM	3059	CD	ARG A 417	23.170	29.934	47.979	1.00	29.59	C
ATOM	3062	NE	ARG A 417	24.219	30.705	47.300	1.00	31.46	N
ATOM	3064	CZ	ARG A 417	24.563	30.566	46.028	1.00	32.48	C
ATOM	3065	NH1	ARG A 417	23.923	29.718	45.218	1.00	31.64	N
ATOM	3068	NH2	ARG A 417	25.561	31.297	45.560	1.00	35.09	N
ATOM	3071	C	ARG A 417	21.189	27.809	49.740	1.00	22.27	C
ATOM	3072	O	ARG A 417	22.056	27.006	49.463	1.00	22.01	O
ATOM	3073	N	PHE A 418	20.832	28.087	50.966	1.00	20.58	N
ATOM	3075	CA	PHE A 418	21.497	27.534	52.085	1.00	20.58	C
ATOM	3077	CB	PHE A 418	20.929	28.221	53.334	1.00	20.56	C
ATOM	3080	CG	PHE A 418	21.459	27.688	54.603	1.00	21.90	C
ATOM	3081	CD1	PHE A 418	22.804	27.730	54.866	1.00	22.80	C
ATOM	3083	CE1	PHE A 418	23.301	27.249	56.078	1.00	24.14	C
ATOM	3085	CZ	PHE A 418	22.445	26.710	57.020	1.00	22.87	C
ATOM	3087	CE2	PHE A 418	21.104	26.667	56.766	1.00	24.34	C
ATOM	3089	CD2	PHE A 418	20.607	27.160	55.557	1.00	24.46	C
ATOM	3091	C	PHE A 418	21.344	25.993	52.093	1.00	19.91	C
ATOM	3092	O	PHE A 418	22.341	25.280	52.142	1.00	19.56	O
ATOM	3093	N	PRO A 419	20.113	25.482	52.036	1.00	18.94	N
ATOM	3094	CA	PRO A 419	19.937	24.034	51.997	1.00	18.75	C
ATOM	3096	CB	PRO A 419	18.399	23.841	52.040	1.00	18.34	C
ATOM	3099	CG	PRO A 419	17.805	25.158	51.682	1.00	18.39	C
ATOM	3102	CD	PRO A 419	18.813	26.194	52.076	1.00	18.47	C
ATOM	3105	C	PRO A 419	20.570	23.371	50.779	1.00	18.68	C
ATOM	3106	O	PRO A 419	21.038	22.275	50.925	1.00	17.29	O
ATOM	3107	N	ARG A 420	20.604	24.001	49.618	1.00	19.60	N
ATOM	3109	CA	ARG A 420	21.293	23.391	48.482	1.00	20.80	C
ATOM	3111	CB	ARG A 420	21.115	24.220	47.208	1.00	21.78	C
ATOM	3114	CG	ARG A 420	19.738	24.126	46.596	1.00	23.43	C
ATOM	3117	CD	ARG A 420	19.688	24.371	45.091	1.00	27.38	C
ATOM	3120	NE	ARG A 420	18.507	25.153	44.721	1.00	28.41	N
ATOM	3122	CZ	ARG A 420	18.369	26.451	44.979	1.00	30.57	C
ATOM	3123	NH1	ARG A 420	19.334	27.127	45.584	1.00	31.62	N

ATOM	3126	NH2 ARG A 420	17.267	27.088	44.623	1.00	32.90	N
ATOM	3129	C ARG A 420	22.776	23.220	48.789	1.00	21.08	C
ATOM	3130	O ARG A 420	23.384	22.202	48.436	1.00	21.37	O
ATOM	3131	N MET A 421	23.359	24.179	49.502	1.00	21.52	N
ATOM	3133	CA MET A 421	24.789	24.086	49.848	1.00	21.36	C
ATOM	3135	CB MET A 421	25.274	25.382	50.493	1.00	21.17	C
ATOM	3138	CG MET A 421	25.343	26.476	49.534	1.00	23.46	C
ATOM	3141	SD MET A 421	25.907	27.975	50.266	1.00	26.15	S
ATOM	3142	CE MET A 421	27.451	27.516	51.009	1.00	26.23	C
ATOM	3146	C MET A 421	25.065	22.927	50.794	1.00	20.75	C
ATOM	3147	O MET A 421	25.982	22.134	50.582	1.00	18.82	O
ATOM	3148	N LEU A 422	24.303	22.882	51.878	1.00	21.18	N
ATOM	3150	CA LEU A 422	24.394	21.749	52.801	1.00	21.92	C
ATOM	3152	CB LEU A 422	23.453	21.908	54.002	1.00	21.86	C
ATOM	3155	CG LEU A 422	23.727	23.166	54.819	1.00	23.07	C
ATOM	3157	CD1 LEU A 422	22.756	23.247	55.989	1.00	24.63	C
ATOM	3161	CD2 LEU A 422	25.168	23.226	55.326	1.00	25.26	C
ATOM	3165	C LEU A 422	24.156	20.430	52.081	1.00	21.25	C
ATOM	3166	O LEU A 422	24.808	19.472	52.403	1.00	22.05	O
ATOM	3167	N MET A 423	23.308	20.382	51.066	1.00	21.30	N
ATOM	3169	CA MET A 423	23.081	19.119	50.330	1.00	22.24	C
ATOM	3171	CB MET A 423	21.931	19.232	49.313	1.00	23.34	C
ATOM	3174	CG MET A 423	20.567	19.696	49.843	1.00	28.24	C
ATOM	3177	SD MET A 423	19.535	18.438	50.632	1.00	35.70	S
ATOM	3178	CE MET A 423	20.458	18.220	52.061	1.00	33.45	C
ATOM	3182	C MET A 423	24.301	18.610	49.558	1.00	21.01	C
ATOM	3183	O MET A 423	24.358	17.438	49.194	1.00	21.62	O
ATOM	3184	N LYS A 424	25.233	19.496	49.238	1.00	18.97	N
ATOM	3186	CA LYS A 424	26.509	19.095	48.662	1.00	17.89	C
ATOM	3188	CB LYS A 424	27.290	20.310	48.155	1.00	17.59	C
ATOM	3191	CG LYS A 424	26.594	21.018	46.988	1.00	18.56	C
ATOM	3194	CD LYS A 424	26.467	20.113	45.762	1.00	19.26	C
ATOM	3197	CE LYS A 424	25.693	20.769	44.631	1.00	20.40	C
ATOM	3200	NZ LYS A 424	25.020	19.777	43.751	1.00	21.19	N
ATOM	3204	C LYS A 424	27.372	18.290	49.622	1.00	16.82	C
ATOM	3205	O LYS A 424	28.179	17.473	49.186	1.00	16.71	O
ATOM	3206	N LEU A 425	27.217	18.529	50.923	1.00	15.99	N
ATOM	3208	CA LEU A 425	27.866	17.722	51.925	1.00	15.25	C
ATOM	3210	CB LEU A 425	27.639	18.323	53.316	1.00	15.87	C
ATOM	3213	CG LEU A 425	28.185	19.728	53.664	1.00	16.61	C
ATOM	3215	CD1 LEU A 425	27.714	20.115	55.047	1.00	17.81	C
ATOM	3219	CD2 LEU A 425	29.689	19.777	53.638	1.00	17.71	C
ATOM	3223	C LEU A 425	27.367	16.266	51.846	1.00	15.24	C
ATOM	3224	O LEU A 425	28.117	15.346	52.119	1.00	15.24	O
ATOM	3225	N VAL A 426	26.103	16.064	51.470	1.00	14.71	N
ATOM	3227	CA VAL A 426	25.576	14.726	51.249	1.00	14.48	C
ATOM	3229	CB VAL A 426	24.041	14.703	50.975	1.00	13.91	C
ATOM	3231	CG1 VAL A 426	23.580	13.309	50.838	1.00	13.11	C

ATOM	3235	CG2 VAL A 426	23.228	15.408	52.101	1.00	14.22	C
ATOM	3239	C VAL A 426	26.263	14.040	50.077	1.00	15.09	C
ATOM	3240	O VAL A 426	26.597	12.852	50.171	1.00	14.93	O
ATOM	3241	N SER A 427	26.374	14.758	48.950	1.00	15.49	N
ATOM	3243	CA SER A 427	27.035	14.272	47.736	1.00	15.56	C
ATOM	3245	CB SER A 427	27.087	15.387	46.694	1.00	15.86	C
ATOM	3248	OG SER A 427	25.829	15.628	46.117	1.00	18.97	O
ATOM	3250	C SER A 427	28.483	13.883	48.043	1.00	15.75	C
ATOM	3251	O SER A 427	28.965	12.837	47.616	1.00	15.74	O
ATOM	3252	N LEU A 428	29.163	14.730	48.806	1.00	15.28	N
ATOM	3254	CA LEU A 428	30.518	14.463	49.183	1.00	16.34	C
ATOM	3256	CB LEU A 428	31.104	15.660	49.935	1.00	16.46	C
ATOM	3259	CG LEU A 428	31.367	16.893	49.096	1.00	16.94	C
ATOM	3261	CD1 LEU A 428	31.746	18.004	50.036	1.00	19.53	C
ATOM	3265	CD2 LEU A 428	32.479	16.617	48.078	1.00	16.50	C
ATOM	3269	C LEU A 428	30.699	13.199	50.022	1.00	16.91	C
ATOM	3270	O LEU A 428	31.729	12.536	49.880	1.00	16.87	O
ATOM	3271	N ARG A 429	29.754	12.872	50.916	1.00	17.30	N
ATOM	3273	CA ARG A 429	29.880	11.617	51.670	1.00	17.91	C
ATOM	3275	CB ARG A 429	28.730	11.374	52.612	1.00	18.11	C
ATOM	3278	CG ARG A 429	28.861	11.936	53.873	1.00	19.58	C
ATOM	3281	CD ARG A 429	30.164	11.661	54.641	1.00	21.53	C
ATOM	3284	NE ARG A 429	30.184	12.737	55.630	1.00	21.34	N
ATOM	3286	CZ ARG A 429	29.809	12.585	56.872	1.00	19.67	C
ATOM	3287	NH1 ARG A 429	29.501	11.405	57.320	1.00	16.91	N
ATOM	3290	NH2 ARG A 429	29.784	13.633	57.677	1.00	24.69	N
ATOM	3293	C ARG A 429	29.885	10.424	50.759	1.00	18.03	C
ATOM	3294	O ARG A 429	30.661	9.500	50.948	1.00	19.08	O
ATOM	3295	N THR A 430	28.964	10.413	49.814	1.00	17.59	N
ATOM	3297	CA THR A 430	28.948	9.365	48.810	1.00	17.28	C
ATOM	3299	CB THR A 430	27.691	9.495	47.972	1.00	16.89	C
ATOM	3301	OG1 THR A 430	26.552	9.207	48.793	1.00	16.44	O
ATOM	3303	CG2 THR A 430	27.647	8.457	46.895	1.00	16.72	C
ATOM	3307	C THR A 430	30.216	9.384	47.921	1.00	17.34	C
ATOM	3308	O THR A 430	30.728	8.343	47.576	1.00	18.01	O
ATOM	3309	N LEU A 431	30.718	10.550	47.541	1.00	17.45	N
ATOM	3311	CA LEU A 431	31.968	10.598	46.758	1.00	17.22	C
ATOM	3313	CB LEU A 431	32.272	12.015	46.336	1.00	16.74	C
ATOM	3316	CG LEU A 431	31.800	12.552	44.966	1.00	16.62	C
ATOM	3318	CD1 LEU A 431	31.263	11.522	44.010	1.00	15.12	C
ATOM	3322	CD2 LEU A 431	30.838	13.686	45.134	1.00	14.98	C
ATOM	3326	C LEU A 431	33.159	10.006	47.554	1.00	17.29	C
ATOM	3327	O LEU A 431	34.049	9.402	47.004	1.00	16.51	O
ATOM	3328	N SER A 432	33.108	10.131	48.863	1.00	17.72	N
ATOM	3330	CA SER A 432	34.080	9.531	49.726	1.00	18.63	C
ATOM	3332	CB SER A 432	33.796	9.946	51.149	1.00	18.84	C
ATOM	3335	OG SER A 432	34.982	9.889	51.872	1.00	20.35	O
ATOM	3337	C SER A 432	34.113	8.013	49.691	1.00	19.34	C

ATOM	3338	O	SER A 432	35.207	7.421	49.779	1.00	20.24	O
ATOM	3339	N	SER A 433	32.933	7.383	49.648	1.00	19.33	N
ATOM	3341	CA	SER A 433	32.830	5.935	49.475	1.00	19.25	C
ATOM	3343	CB	SER A 433	31.380	5.457	49.606	1.00	19.52	C
ATOM	3346	OG	SER A 433	30.864	5.761	50.876	1.00	23.43	O
ATOM	3348	C	SER A 433	33.315	5.497	48.112	1.00	18.21	C
ATOM	3349	O	SER A 433	33.955	4.449	47.984	1.00	18.98	O
ATOM	3350	N	VAL A 434	32.938	6.245	47.088	1.00	17.26	N
ATOM	3352	CA	VAL A 434	33.393	5.976	45.732	1.00	17.49	C
ATOM	3354	CB	VAL A 434	32.777	6.997	44.757	1.00	17.59	C
ATOM	3356	CG1	VAL A 434	33.461	6.954	43.419	1.00	17.34	C
ATOM	3360	CG2	VAL A 434	31.222	6.725	44.582	1.00	17.82	C
ATOM	3364	C	VAL A 434	34.947	5.981	45.668	1.00	17.71	C
ATOM	3365	O	VAL A 434	35.566	5.123	45.023	1.00	17.05	O
ATOM	3366	N	HIS A 435	35.548	6.927	46.376	1.00	17.43	N
ATOM	3368	CA	HIS A 435	36.977	7.015	46.504	1.00	18.66	C
ATOM	3370	CB	HIS A 435	37.352	8.325	47.193	1.00	18.49	C
ATOM	3373	CG	HIS A 435	38.785	8.406	47.609	1.00	18.52	C
ATOM	3374	ND1	HIS A 435	39.163	8.437	48.933	1.00	16.02	N
ATOM	3376	CE1	HIS A 435	40.478	8.526	49.004	1.00	17.34	C
ATOM	3378	NE2	HIS A 435	40.968	8.542	47.775	1.00	16.72	N
ATOM	3380	CD2	HIS A 435	39.930	8.488	46.882	1.00	17.51	C
ATOM	3382	C	HIS A 435	37.608	5.813	47.245	1.00	19.59	C
ATOM	3383	O	HIS A 435	38.643	5.325	46.816	1.00	19.38	O
ATOM	3384	N	SER A 436	37.001	5.349	48.339	1.00	20.61	N
ATOM	3386	CA	SER A 436	37.480	4.150	49.021	1.00	21.50	C
ATOM	3388	CB	SER A 436	36.635	3.807	50.249	1.00	21.87	C
ATOM	3391	OG	SER A 436	36.836	4.754	51.285	1.00	24.47	O
ATOM	3393	C	SER A 436	37.444	2.984	48.060	1.00	21.81	C
ATOM	3394	O	SER A 436	38.369	2.164	48.064	1.00	22.13	O
ATOM	3395	N	GLU A 437	36.402	2.909	47.225	1.00	21.73	N
ATOM	3397	CA	GLU A 437	36.338	1.831	46.229	1.00	22.18	C
ATOM	3399	CB	GLU A 437	34.969	1.748	45.500	1.00	22.15	C
ATOM	3402	CG	GLU A 437	33.758	1.448	46.410	1.00	24.83	C
ATOM	3405	CD	GLU A 437	32.416	2.022	45.883	1.00	27.98	C
ATOM	3406	OE1	GLU A 437	31.628	2.616	46.692	1.00	29.68	O
ATOM	3407	OE2	GLU A 437	32.143	1.887	44.661	1.00	27.41	O
ATOM	3408	C	GLU A 437	37.484	1.970	45.215	1.00	21.66	C
ATOM	3409	O	GLU A 437	38.007	0.954	44.753	1.00	21.07	O
ATOM	3410	N	GLN A 438	37.872	3.205	44.870	1.00	21.22	N
ATOM	3412	CA	GLN A 438	38.960	3.418	43.898	1.00	21.53	C
ATOM	3414	CB	GLN A 438	38.925	4.838	43.308	1.00	21.92	C
ATOM	3417	CG	GLN A 438	40.182	5.303	42.532	1.00	22.14	C
ATOM	3420	CD	GLN A 438	40.414	4.542	41.242	1.00	22.72	C
ATOM	3421	OE1	GLN A 438	39.994	4.978	40.162	1.00	22.48	O
ATOM	3422	NE2	GLN A 438	41.103	3.411	41.344	1.00	21.67	N
ATOM	3425	C	GLN A 438	40.309	3.088	44.552	1.00	21.78	C
ATOM	3426	O	GLN A 438	41.221	2.624	43.892	1.00	21.15	O

67

ATOM	3427	N	VAL A 439	40.406	3.287	45.863	1.00	22.24	N
ATOM	3429	CA	VAL A 439	41.626	2.983	46.581	1.00	22.93	C
ATOM	3431	CB	VAL A 439	41.617	3.590	47.995	1.00	22.83	C
ATOM	3433	CG1	VAL A 439	42.726	2.982	48.850	1.00	22.44	C
ATOM	3437	CG2	VAL A 439	41.782	5.070	47.915	1.00	23.07	C
ATOM	3441	C	VAL A 439	41.797	1.472	46.662	1.00	23.19	C
ATOM	3442	O	VAL A 439	42.904	0.957	46.531	1.00	23.61	O
ATOM	3443	N	PHE A 440	40.686	0.782	46.887	1.00	23.59	N
ATOM	3445	CA	PHE A 440	40.632	-0.679	46.948	1.00	23.72	C
ATOM	3447	CB	PHE A 440	39.216	-1.108	47.359	1.00	23.83	C
ATOM	3450	CG	PHE A 440	39.072	-2.575	47.643	1.00	26.10	C
ATOM	3451	CD1	PHE A 440	39.203	-3.059	48.944	1.00	27.31	C
ATOM	3453	CE1	PHE A 440	39.080	-4.425	49.208	1.00	28.42	C
ATOM	3455	CZ	PHE A 440	38.812	-5.337	48.155	1.00	28.49	C
ATOM	3457	CE2	PHE A 440	38.676	-4.863	46.855	1.00	27.80	C
ATOM	3459	CD2	PHE A 440	38.798	-3.482	46.603	1.00	27.54	C
ATOM	3461	C	PHE A 440	41.031	-1.261	45.592	1.00	23.41	C
ATOM	3462	O	PHE A 440	41.835	-2.175	45.534	1.00	23.32	O
ATOM	3463	N	ALA A 441	40.503	-0.700	44.507	1.00	23.68	N
ATOM	3465	CA	ALA A 441	40.850	-1.132	43.144	1.00	24.12	C
ATOM	3467	CB	ALA A 441	39.945	-0.475	42.110	1.00	23.79	C
ATOM	3471	C	ALA A 441	42.320	-0.901	42.762	1.00	24.90	C
ATOM	3472	O	ALA A 441	42.830	-1.583	41.875	1.00	24.76	O
ATOM	3473	N	LEU A 442	42.985	0.062	43.408	1.00	25.88	N
ATOM	3475	CA	LEU A 442	44.424	0.258	43.232	1.00	26.68	C
ATOM	3477	CB	LEU A 442	44.873	1.619	43.763	1.00	26.33	C
ATOM	3480	CG	LEU A 442	44.327	2.844	43.037	1.00	26.21	C
ATOM	3482	CD1	LEU A 442	44.704	4.101	43.802	1.00	25.44	C
ATOM	3486	CD2	LEU A 442	44.812	2.906	41.604	1.00	25.65	C
ATOM	3490	C	LEU A 442	45.206	-0.852	43.922	1.00	27.53	C
ATOM	3491	O	LEU A 442	46.138	-1.376	43.354	1.00	27.92	O
ATOM	3492	N	ARG A 443	44.801	-1.200	45.139	1.00	29.13	N
ATOM	3494	CA	ARG A 443	45.410	-2.278	45.937	1.00	30.54	C
ATOM	3496	CB	ARG A 443	44.631	-2.482	47.251	1.00	31.28	C
ATOM	3499	CG	ARG A 443	45.319	-1.941	48.495	1.00	34.06	C
ATOM	3502	CD	ARG A 443	46.103	-3.002	49.305	1.00	37.28	C
ATOM	3505	NE	ARG A 443	45.886	-2.830	50.750	1.00	39.82	N
ATOM	3507	CZ	ARG A 443	45.823	-3.816	51.652	1.00	41.09	C
ATOM	3508	NH1	ARG A 443	45.961	-5.094	51.303	1.00	40.52	N
ATOM	3511	NH2	ARG A 443	45.610	-3.505	52.932	1.00	42.23	N
ATOM	3514	C	ARG A 443	45.489	-3.617	45.211	1.00	30.54	C
ATOM	3515	O	ARG A 443	46.546	-4.267	45.211	1.00	30.72	O
ATOM	3516	N	LEU A 444	44.389	-4.038	44.596	1.00	30.38	N
ATOM	3518	CA	LEU A 444	44.412	-5.305	43.840	1.00	30.47	C
ATOM	3520	CB	LEU A 444	43.007	-5.927	43.708	1.00	30.45	C
ATOM	3523	CG	LEU A 444	41.844	-5.080	43.182	1.00	30.54	C
ATOM	3525	CD1	LEU A 444	41.765	-5.168	41.674	1.00	30.70	C
ATOM	3529	CD2	LEU A 444	40.541	-5.535	43.811	1.00	31.11	C

68

ATOM	3533	C	LEU A 444	45.100	-5.161	42.472	1.00	30.14	C
ATOM	3534	O	LEU A 444	45.595	-6.144	41.931	1.00	30.25	O
ATOM	3535	N	GLN A 445	45.160	-3.937	41.941	1.00	29.84	N
ATOM	3537	CA	GLN A 445	45.814	-3.652	40.651	1.00	29.80	C
ATOM	3539	CB	GLN A 445	45.078	-2.484	39.986	1.00	30.05	C
ATOM	3542	CG	GLN A 445	45.441	-2.111	38.547	1.00	30.96	C
ATOM	3545	CD	GLN A 445	44.927	-0.707	38.194	1.00	33.36	C
ATOM	3546	OE1	GLN A 445	45.652	0.115	37.613	1.00	35.36	O
ATOM	3547	NE2	GLN A 445	43.686	-0.426	38.575	1.00	33.42	N
ATOM	3550	C	GLN A 445	47.331	-3.356	40.801	1.00	29.48	C
ATOM	3551	O	GLN A 445	47.991	-2.911	39.847	1.00	29.37	O
ATOM	3552	N	ASP A 446	47.883	-3.632	41.988	1.00	28.99	N
ATOM	3554	CA	ASP A 446	49.315	-3.451	42.273	1.00	28.52	C
ATOM	3556	CB	ASP A 446	50.162	-4.386	41.389	1.00	28.74	C
ATOM	3559	CG	ASP A 446	50.582	-5.653	42.115	1.00	30.00	C
ATOM	3560	OD1	ASP A 446	51.055	-5.551	43.270	1.00	31.05	O
ATOM	3561	OD2	ASP A 446	50.473	-6.794	41.603	1.00	31.36	O
ATOM	3562	C	ASP A 446	49.802	-1.995	42.130	1.00	27.48	C
ATOM	3563	O	ASP A 446	50.983	-1.755	41.850	1.00	27.27	O
ATOM	3564	N	LYS A 447	48.896	-1.035	42.317	1.00	25.97	N
ATOM	3566	CA	LYS A 447	49.236	0.379	42.194	1.00	25.34	C
ATOM	3568	CB	LYS A 447	48.236	1.112	41.308	1.00	25.56	C
ATOM	3571	CG	LYS A 447	48.791	1.476	39.941	1.00	27.42	C
ATOM	3574	CD	LYS A 447	47.937	2.541	39.234	1.00	29.14	C
ATOM	3577	CE	LYS A 447	48.324	2.703	37.756	1.00	29.77	C
ATOM	3580	NZ	LYS A 447	49.794	2.489	37.525	1.00	29.95	N
ATOM	3584	C	LYS A 447	49.281	1.012	43.574	1.00	24.20	C
ATOM	3585	O	LYS A 447	48.264	1.073	44.273	1.00	24.40	O
ATOM	3586	N	LYS A 448	50.465	1.479	43.961	1.00	22.65	N
ATOM	3588	CA	LYS A 448	50.708	1.963	45.322	1.00	21.68	C
ATOM	3590	CB	LYS A 448	52.132	1.609	45.769	1.00	22.05	C
ATOM	3593	CG	LYS A 448	52.363	0.108	45.985	1.00	23.85	C
ATOM	3596	CD	LYS A 448	51.620	-0.402	47.242	1.00	25.90	C
ATOM	3599	CE	LYS A 448	51.029	-1.793	47.032	1.00	27.29	C
ATOM	3602	NZ	LYS A 448	52.111	-2.843	46.988	1.00	27.04	N
ATOM	3606	C	LYS A 448	50.500	3.469	45.466	1.00	19.63	C
ATOM	3607	O	LYS A 448	50.992	4.256	44.662	1.00	19.17	O
ATOM	3608	N	LEU A 449	49.763	3.857	46.499	1.00	17.42	N
ATOM	3610	CA	LEU A 449	49.747	5.246	46.931	1.00	16.08	C
ATOM	3612	CB	LEU A 449	48.709	5.470	48.016	1.00	15.80	C
ATOM	3615	CG	LEU A 449	47.276	5.187	47.620	1.00	15.59	C
ATOM	3617	CD1	LEU A 449	46.393	5.462	48.794	1.00	15.93	C
ATOM	3621	CD2	LEU A 449	46.889	6.042	46.441	1.00	16.59	C
ATOM	3625	C	LEU A 449	51.119	5.609	47.497	1.00	14.86	C
ATOM	3626	O	LEU A 449	51.716	4.819	48.213	1.00	14.21	O
ATOM	3627	N	PRO A 450	51.602	6.815	47.207	1.00	13.64	N
ATOM	3628	CA	PRO A 450	52.857	7.287	47.801	1.00	12.45	C
ATOM	3630	CB	PRO A 450	53.097	8.619	47.106	1.00	12.02	C

ATOM	3633	CG	PRO A 450	51.794	9.075	46.715	1.00	12.24	C
ATOM	3636	CD	PRO A 450	50.968	7.849	46.361	1.00	13.38	C
ATOM	3639	C	PRO A 450	52.651	7.451	49.305	1.00	11.44	C
ATOM	3640	O	PRO A 450	51.523	7.579	49.705	1.00	10.71	O
ATOM	3641	N	PRO A 451	53.691	7.370	50.114	1.00	11.43	N
ATOM	3642	CA	PRO A 451	53.554	7.354	51.579	1.00	11.97	C
ATOM	3644	CB	PRO A 451	55.004	7.498	52.056	1.00	11.99	C
ATOM	3647	CG	PRO A 451	55.826	6.908	50.950	1.00	11.22	C
ATOM	3650	CD	PRO A 451	55.096	7.221	49.693	1.00	11.32	C
ATOM	3653	C	PRO A 451	52.663	8.432	52.220	1.00	13.16	C
ATOM	3654	O	PRO A 451	51.988	8.113	53.182	1.00	14.07	O
ATOM	3655	N	LEU A 452	52.639	9.662	51.726	1.00	13.81	N
ATOM	3657	CA	LEU A 452	51.818	10.694	52.366	1.00	14.82	C
ATOM	3659	CB	LEU A 452	52.222	12.127	51.935	1.00	14.59	C
ATOM	3662	CG	LEU A 452	53.581	12.577	52.524	1.00	13.96	C
ATOM	3664	CD1	LEU A 452	54.136	13.827	51.798	1.00	12.67	C
ATOM	3668	CD2	LEU A 452	53.460	12.812	54.022	1.00	12.97	C
ATOM	3672	C	LEU A 452	50.339	10.461	52.119	1.00	15.67	C
ATOM	3673	O	LEU A 452	49.526	10.735	52.981	1.00	16.33	O
ATOM	3674	N	LEU A 453	49.980	9.984	50.940	1.00	16.51	N
ATOM	3676	CA	LEU A 453	48.589	9.584	50.700	1.00	16.83	C
ATOM	3678	CB	LEU A 453	48.316	9.473	49.200	1.00	16.80	C
ATOM	3681	CG	LEU A 453	48.492	10.799	48.488	1.00	16.52	C
ATOM	3683	CD1	LEU A 453	48.178	10.622	47.008	1.00	15.48	C
ATOM	3687	CD2	LEU A 453	47.607	11.881	49.149	1.00	15.08	C
ATOM	3691	C	LEU A 453	48.255	8.252	51.383	1.00	16.93	C
ATOM	3692	O	LEU A 453	47.164	8.076	51.892	1.00	15.52	O
ATOM	3693	N	SER A 454	49.218	7.338	51.433	1.00	17.80	N
ATOM	3695	CA	SER A 454	48.998	6.054	52.085	1.00	18.57	C
ATOM	3697	CB	SER A 454	50.234	5.177	52.002	1.00	18.79	C
ATOM	3700	OG	SER A 454	50.044	3.985	52.760	1.00	21.39	O
ATOM	3702	C	SER A 454	48.583	6.204	53.539	1.00	18.91	C
ATOM	3703	O	SER A 454	47.734	5.448	53.989	1.00	18.81	O
ATOM	3704	N	GLU A 455	49.181	7.165	54.252	1.00	19.47	N
ATOM	3706	CA	GLU A 455	48.911	7.434	55.674	1.00	20.61	C
ATOM	3708	CB	GLU A 455	49.792	8.600	56.226	1.00	20.80	C
ATOM	3711	CG	GLU A 455	51.133	8.200	56.856	1.00	22.89	C
ATOM	3714	CD	GLU A 455	52.067	9.397	57.206	1.00	24.58	C
ATOM	3715	OE1	GLU A 455	53.185	9.162	57.768	1.00	18.79	O
ATOM	3716	OE2	GLU A 455	51.687	10.571	56.909	1.00	25.06	O
ATOM	3717	C	GLU A 455	47.455	7.813	55.869	1.00	21.13	C
ATOM	3718	O	GLU A 455	46.915	7.648	56.942	1.00	20.97	O
ATOM	3719	N	ILE A 456	46.842	8.380	54.842	1.00	22.30	N
ATOM	3721	CA	ILE A 456	45.468	8.851	54.948	1.00	23.36	C
ATOM	3723	CB	ILE A 456	45.211	10.156	54.107	1.00	23.51	C
ATOM	3725	CG1	ILE A 456	46.271	11.223	54.348	1.00	24.04	C
ATOM	3728	CD1	ILE A 456	46.137	12.411	53.377	1.00	24.87	C
ATOM	3732	CG2	ILE A 456	43.862	10.788	54.457	1.00	23.80	C

ATOM	3736	C	ILE A 456	44.460	7.772	54.552	1.00	23.95	C
ATOM	3737	O	ILE A 456	43.472	7.588	55.255	1.00	24.60	O
ATOM	3738	N	TRP A 457	44.715	7.054	53.460	1.00	24.49	N
ATOM	3740	CA	TRP A 457	43.686	6.274	52.788	1.00	25.10	C
ATOM	3742	CB	TRP A 457	43.581	6.757	51.352	1.00	24.61	C
ATOM	3745	CG	TRP A 457	43.172	8.173	51.286	1.00	24.27	C
ATOM	3746	CD1	TRP A 457	42.382	8.843	52.173	1.00	23.43	C
ATOM	3748	NE1	TRP A 457	42.225	10.146	51.774	1.00	23.31	N
ATOM	3750	CE2	TRP A 457	42.909	10.339	50.607	1.00	23.37	C
ATOM	3751	CD2	TRP A 457	43.513	9.113	50.268	1.00	24.59	C
ATOM	3752	CE3	TRP A 457	44.274	9.046	49.096	1.00	25.78	C
ATOM	3754	CZ3	TRP A 457	44.408	10.189	48.323	1.00	26.73	C
ATOM	3756	CH2	TRP A 457	43.796	11.396	48.698	1.00	24.85	C
ATOM	3758	CZ2	TRP A 457	43.053	11.489	49.833	1.00	24.21	C
ATOM	3760	C	TRP A 457	43.811	4.752	52.805	1.00	26.89	C
ATOM	3761	O	TRP A 457	42.804	4.056	52.578	1.00	26.84	O
ATOM	3762	N	ASP A 458	45.011	4.216	53.039	1.00	28.36	N
ATOM	3764	CA	ASP A 458	45.153	2.759	53.106	1.00	29.97	C
ATOM	3766	CB	ASP A 458	46.605	2.290	52.851	1.00	29.50	C
ATOM	3769	CG	ASP A 458	47.037	2.432	51.388	1.00	28.75	C
ATOM	3770	OD1	ASP A 458	46.194	2.287	50.471	1.00	25.80	O
ATOM	3771	OD2	ASP A 458	48.218	2.709	51.066	1.00	28.62	O
ATOM	3772	C	ASP A 458	44.668	2.262	54.471	1.00	31.78	C
ATOM	3773	O	ASP A 458	44.698	3.026	55.444	1.00	31.76	O
ATOM	3774	N	VAL A 459	44.229	0.994	54.538	1.00	33.72	N
ATOM	3776	CA	VAL A 459	43.925	0.350	55.829	1.00	35.18	C
ATOM	3778	CB	VAL A 459	42.776	-0.738	55.764	1.00	35.47	C
ATOM	3780	CG1	VAL A 459	41.402	-0.065	55.696	1.00	36.37	C
ATOM	3784	CG2	VAL A 459	42.954	-1.714	54.600	1.00	35.60	C
ATOM	3788	C	VAL A 459	45.207	-0.240	56.430	1.00	36.19	C
ATOM	3789	O	VAL A 459	46.053	-0.769	55.701	1.00	36.50	O
ATOM	3790	N	ALA A 460	45.338	-0.119	57.759	1.00	37.07	N
ATOM	3792	CA	ALA A 460	46.520	-0.567	58.513	1.00	37.34	C
ATOM	3794	CB	ALA A 460	46.663	-2.107	58.448	1.00	37.39	C
ATOM	3798	C	ALA A 460	47.805	0.130	58.048	1.00	37.43	C
ATOM	3799	O	ALA A 460	47.797	1.331	57.735	1.00	38.01	O
ATOM	3800	O37	GW3 A 500	45.928	22.483	41.966	1.00	29.37	O
ATOM	3801	C35	GW3 A 500	46.006	22.922	43.117	1.00	27.82	C
ATOM	3802	O36	GW3 A 500	46.154	24.137	43.352	1.00	30.11	O
ATOM	3803	C34	GW3 A 500	45.991	22.048	44.336	1.00	25.98	C
ATOM	3806	C32	GW3 A 500	45.090	20.843	44.120	1.00	24.26	C
ATOM	3807	C33	GW3 A 500	45.577	19.636	43.605	1.00	22.94	C
ATOM	3809	C31	GW3 A 500	43.729	20.985	44.385	1.00	22.24	C
ATOM	3811	C30	GW3 A 500	42.848	19.935	44.145	1.00	23.11	C
ATOM	3813	C29	GW3 A 500	43.333	18.734	43.634	1.00	22.63	C
ATOM	3815	C28	GW3 A 500	44.691	18.592	43.361	1.00	23.34	C
ATOM	3816	O27	GW3 A 500	45.145	17.397	42.893	1.00	23.88	O
ATOM	3817	C26	GW3 A 500	44.617	16.843	41.708	1.00	24.90	C

ATOM	3820	C25 GW3 A 500	44.920	15.377	41.703	1.00	24.64	C
ATOM	3823	C17 GW3 A 500	44.100	14.679	40.630	1.00	24.72	C
ATOM	3826	N09 GW3 A 500	43.591	13.396	41.119	1.00	23.09	N
ATOM	3827	C16 GW3 A 500	44.504	12.521	41.826	1.00	27.47	C
ATOM	3830	C18 GW3 A 500	43.883	11.827	42.999	1.00	32.67	C
ATOM	3831	C19 GW3 A 500	44.086	10.381	43.132	1.00	37.17	C
ATOM	3832	CL4 GW3 A 500	45.046	9.500	41.913	1.00	48.91	CL
ATOM	3833	C23 GW3 A 500	43.138	12.498	43.950	1.00	33.22	C
ATOM	3835	C22 GW3 A 500	42.580	11.795	45.015	1.00	34.93	C
ATOM	3837	C21 GW3 A 500	42.742	10.415	45.175	1.00	37.10	C
ATOM	3839	C20 GW3 A 500	43.479	9.662	44.266	1.00	39.44	C
ATOM	3840	C39 GW3 A 500	43.672	8.164	44.368	1.00	41.02	C
ATOM	3841	F41 GW3 A 500	43.097	7.617	43.292	1.00	40.05	F
ATOM	3842	F40 GW3 A 500	43.146	7.681	45.481	1.00	42.09	F
ATOM	3843	F42 GW3 A 500	44.958	7.854	44.374	1.00	42.72	F
ATOM	3844	C08 GW3 A 500	42.341	12.851	40.595	1.00	20.89	C
ATOM	3847	C07 GW3 A 500	41.159	13.837	40.585	1.00	18.51	C
ATOM	3849	C01 GW3 A 500	40.117	13.455	39.587	1.00	17.88	C
ATOM	3850	C02 GW3 A 500	39.839	12.122	39.259	1.00	17.60	C
ATOM	3852	C03 GW3 A 500	38.864	11.795	38.318	1.00	17.52	C
ATOM	3854	C04 GW3 A 500	38.142	12.800	37.693	1.00	16.64	C
ATOM	3856	C05 GW3 A 500	38.428	14.125	37.997	1.00	17.54	C
ATOM	3858	C06 GW3 A 500	39.393	14.461	38.949	1.00	16.25	C
ATOM	3860	C10 GW3 A 500	40.562	13.938	41.935	1.00	18.44	C
ATOM	3861	C11 GW3 A 500	40.530	15.163	42.570	1.00	17.75	C
ATOM	3863	C12 GW3 A 500	39.978	15.260	43.843	1.00	19.18	C
ATOM	3865	C13 GW3 A 500	39.457	14.147	44.489	1.00	18.83	C
ATOM	3867	C14 GW3 A 500	39.502	12.905	43.858	1.00	19.46	C
ATOM	3869	C15 GW3 A 500	40.038	12.811	42.572	1.00	19.27	C
ATOM	3871	O4 IOH A 501	41.801	25.834	49.973	1.00	47.81	O
ATOM	3873	C2 IOH A 501	42.137	25.218	51.196	1.00	45.49	C
ATOM	3875	C3 IOH A 501	40.900	24.618	51.845	1.00	46.17	C
ATOM	3879	C1 IOH A 501	43.140	24.140	50.870	1.00	45.25	C
ATOM	3883	N LEU B 220	1.952	28.417	56.409	1.00	20.12	N
ATOM	3885	CA LEU B 220	2.004	27.365	55.326	1.00	20.40	C
ATOM	3887	CB LEU B 220	1.870	25.949	55.891	1.00	20.67	C
ATOM	3890	CG LEU B 220	2.969	25.326	56.771	1.00	22.03	C
ATOM	3892	CD1 LEU B 220	2.525	23.974	57.322	1.00	22.13	C
ATOM	3896	CD2 LEU B 220	4.275	25.170	56.045	1.00	22.68	C
ATOM	3900	C LEU B 220	0.888	27.586	54.308	1.00	19.67	C
ATOM	3901	O LEU B 220	-0.198	27.978	54.679	1.00	19.18	O
ATOM	3904	N THR B 221	1.161	27.322	53.035	1.00	19.13	N
ATOM	3906	CA THR B 221	0.118	27.358	52.008	1.00	18.93	C
ATOM	3908	CB THR B 221	0.721	27.418	50.597	1.00	19.02	C
ATOM	3910	OG1 THR B 221	1.595	26.293	50.362	1.00	15.73	O
ATOM	3912	CG2 THR B 221	1.623	28.643	50.447	1.00	19.21	C
ATOM	3916	C THR B 221	-0.784	26.126	52.103	1.00	19.37	C
ATOM	3917	O THR B 221	-0.438	25.144	52.736	1.00	19.29	O

ATOM	3918	N	ALA B 222	-1.940	26.185	51.461	1.00	19.97	N
ATOM	3920	CA	ALA B 222	-2.853	25.055	51.450	1.00	20.36	C
ATOM	3922	CB	ALA B 222	-4.114	25.374	50.664	1.00	20.25	C
ATOM	3926	C	ALA B 222	-2.142	23.870	50.844	1.00	20.59	C
ATOM	3927	O	ALA B 222	-2.277	22.766	51.330	1.00	20.50	O
ATOM	3928	N	ALA B 223	-1.358	24.128	49.803	1.00	20.84	N
ATOM	3930	CA	ALA B 223	-0.660	23.080	49.060	1.00	21.31	C
ATOM	3932	CB	ALA B 223	-0.020	23.660	47.810	1.00	21.51	C
ATOM	3936	C	ALA B 223	0.407	22.397	49.885	1.00	21.16	C
ATOM	3937	O	ALA B 223	0.601	21.211	49.747	1.00	21.87	O
ATOM	3938	N	GLN B 224	1.112	23.153	50.717	1.00	20.73	N
ATOM	3940	CA	GLN B 224	2.102	22.585	51.614	1.00	20.66	C
ATOM	3942	CB	GLN B 224	2.996	23.683	52.217	1.00	20.60	C
ATOM	3945	CG	GLN B 224	3.888	24.368	51.165	1.00	21.61	C
ATOM	3948	CD	GLN B 224	4.685	25.571	51.698	1.00	20.35	C
ATOM	3949	OE1	GLN B 224	4.233	26.288	52.592	1.00	20.73	O
ATOM	3950	NE2	GLN B 224	5.874	25.774	51.147	1.00	18.48	N
ATOM	3953	C	GLN B 224	1.424	21.766	52.709	1.00	20.54	C
ATOM	3954	O	GLN B 224	1.925	20.722	53.076	1.00	20.39	O
ATOM	3955	N	GLU B 225	0.319	22.261	53.253	1.00	20.45	N
ATOM	3957	CA	GLU B 225	-0.474	21.489	54.209	1.00	21.68	C
ATOM	3959	CB	GLU B 225	-1.603	22.355	54.810	1.00	22.26	C
ATOM	3962	CG	GLU B 225	-1.091	23.506	55.700	1.00	24.57	C
ATOM	3965	CD	GLU B 225	-2.190	24.430	56.226	1.00	28.84	C
ATOM	3966	OE1	GLU B 225	-3.390	24.145	56.006	1.00	30.04	O
ATOM	3967	OE2	GLU B 225	-1.856	25.452	56.894	1.00	32.32	O
ATOM	3968	C	GLU B 225	-1.021	20.178	53.568	1.00	21.44	C
ATOM	3969	O	GLU B 225	-0.821	19.102	54.102	1.00	21.30	O
ATOM	3970	N	LEU B 226	-1.645	20.268	52.398	1.00	21.09	N
ATOM	3972	CA	LEU B 226	-2.087	19.082	51.680	1.00	21.40	C
ATOM	3974	CB	LEU B 226	-2.688	19.425	50.307	1.00	20.97	C
ATOM	3977	CG	LEU B 226	-3.452	18.233	49.725	1.00	21.69	C
ATOM	3979	CD1	LEU B 226	-4.473	17.665	50.726	1.00	20.99	C
ATOM	3983	CD2	LEU B 226	-4.165	18.624	48.450	1.00	23.12	C
ATOM	3987	C	LEU B 226	-0.966	18.076	51.485	1.00	21.71	C
ATOM	3988	O	LEU B 226	-1.132	16.897	51.756	1.00	22.24	O
ATOM	3989	N	MET B 227	0.177	18.564	51.031	1.00	21.92	N
ATOM	3991	CA	MET B 227	1.344	17.740	50.806	1.00	22.54	C
ATOM	3993	CB	MET B 227	2.477	18.599	50.227	1.00	23.18	C
ATOM	3996	CG	MET B 227	3.889	18.099	50.497	1.00	27.64	C
ATOM	3999	SD	MET B 227	5.252	19.110	49.731	1.00	35.04	S
ATOM	4000	CE	MET B 227	4.355	20.407	48.801	1.00	35.00	C
ATOM	4004	C	MET B 227	1.775	16.978	52.062	1.00	21.43	C
ATOM	4005	O	MET B 227	2.044	15.787	52.001	1.00	20.48	O
ATOM	4006	N	ILE B 228	1.837	17.667	53.197	1.00	21.11	N
ATOM	4008	CA	ILE B 228	2.226	17.033	54.454	1.00	20.70	C
ATOM	4010	CB	ILE B 228	2.454	18.094	55.552	1.00	20.51	C
ATOM	4012	CG1	ILE B 228	3.753	18.863	55.279	1.00	21.99	C

ATOM	4015	CD1 ILE B 228	3.752	20.289	55.826	1.00	21.87	C
ATOM	4019	CG2 ILE B 228	2.541	17.450	56.925	1.00	19.69	C
ATOM	4023	C ILE B 228	1.155	16.000	54.882	1.00	20.68	C
ATOM	4024	O ILE B 228	1.489	14.904	55.320	1.00	20.06	O
ATOM	4025	N GLN B 229	-0.120	16.359	54.753	1.00	20.09	N
ATOM	4027	CA GLN B 229	-1.194	15.446	55.120	1.00	20.97	C
ATOM	4029	CB GLN B 229	-2.574	16.126	54.993	1.00	20.90	C
ATOM	4032	CG GLN B 229	-2.829	17.199	56.034	1.00	22.03	C
ATOM	4035	CD GLN B 229	-3.907	18.235	55.593	1.00	27.82	C
ATOM	4036	OE1 GLN B 229	-4.472	18.124	54.487	1.00	32.18	O
ATOM	4037	NE2 GLN B 229	-4.176	19.235	56.444	1.00	24.45	N
ATOM	4040	C GLN B 229	-1.126	14.146	54.299	1.00	20.36	C
ATOM	4041	O GLN B 229	-1.277	13.080	54.870	1.00	20.51	O
ATOM	4042	N GLN B 230	-0.836	14.247	52.998	1.00	19.95	N
ATOM	4044	CA GLN B 230	-0.678	13.092	52.094	1.00	19.76	C
ATOM	4046	CB GLN B 230	-0.423	13.577	50.638	1.00	19.71	C
ATOM	4049	CG GLN B 230	-1.657	14.211	49.988	1.00	20.96	C
ATOM	4052	CD GLN B 230	-1.489	14.710	48.537	1.00	24.54	C
ATOM	4053	OE1 GLN B 230	-2.232	14.269	47.640	1.00	28.47	O
ATOM	4054	NE2 GLN B 230	-0.596	15.686	48.323	1.00	23.65	N
ATOM	4057	C GLN B 230	0.439	12.125	52.530	1.00	19.30	C
ATOM	4058	O GLN B 230	0.288	10.889	52.504	1.00	19.78	O
ATOM	4059	N LEU B 231	1.562	12.691	52.926	1.00	18.21	N
ATOM	4061	CA LEU B 231	2.728	11.909	53.291	1.00	17.41	C
ATOM	4063	CB LEU B 231	3.978	12.788	53.441	1.00	16.81	C
ATOM	4066	CG LEU B 231	4.473	13.501	52.207	1.00	15.74	C
ATOM	4068	CD1 LEU B 231	5.667	14.324	52.595	1.00	16.14	C
ATOM	4072	CD2 LEU B 231	4.849	12.533	51.189	1.00	17.07	C
ATOM	4076	C LEU B 231	2.491	11.257	54.610	1.00	17.15	C
ATOM	4077	O LEU B 231	2.894	10.119	54.802	1.00	16.91	O
ATOM	4078	N VAL B 232	1.890	12.003	55.531	1.00	16.61	N
ATOM	4080	CA VAL B 232	1.615	11.498	56.860	1.00	16.91	C
ATOM	4082	CB VAL B 232	1.132	12.631	57.800	1.00	16.52	C
ATOM	4084	CG1 VAL B 232	0.611	12.073	59.141	1.00	15.82	C
ATOM	4088	CG2 VAL B 232	2.270	13.587	58.082	1.00	17.23	C
ATOM	4092	C VAL B 232	0.579	10.348	56.799	1.00	17.56	C
ATOM	4093	O VAL B 232	0.771	9.307	57.429	1.00	17.67	O
ATOM	4094	N ALA B 233	-0.505	10.557	56.048	1.00	17.49	N
ATOM	4096	CA ALA B 233	-1.572	9.562	55.883	1.00	17.46	C
ATOM	4098	CB ALA B 233	-2.721	10.162	55.063	1.00	16.78	C
ATOM	4102	C ALA B 233	-1.045	8.277	55.203	1.00	18.02	C
ATOM	4103	O ALA B 233	-1.456	7.197	55.546	1.00	18.54	O
ATOM	4104	N ALA B 234	-0.128	8.412	54.251	1.00	18.75	N
ATOM	4106	CA ALA B 234	0.418	7.274	53.515	1.00	19.67	C
ATOM	4108	CB ALA B 234	1.181	7.751	52.301	1.00	19.31	C
ATOM	4112	C ALA B 234	1.348	6.486	54.439	1.00	20.55	C
ATOM	4113	O ALA B 234	1.357	5.267	54.472	1.00	22.00	O
ATOM	4114	N GLN B 235	2.096	7.204	55.225	1.00	21.28	N

ATOM	4116	CA	GLN B 235	2.897	6.606	56.244	1.00	22.64	C
ATOM	4118	CB	GLN B 235	3.687	7.686	56.962	1.00	23.12	C
ATOM	4121	CG	GLN B 235	4.873	7.175	57.721	1.00	26.16	C
ATOM	4124	CD	GLN B 235	6.154	7.982	57.483	1.00	27.08	C
ATOM	4125	OE1	GLN B 235	6.198	9.190	57.778	1.00	25.27	O
ATOM	4126	NE2	GLN B 235	7.225	7.288	57.050	1.00	25.11	N
ATOM	4129	C	GLN B 235	2.029	5.838	57.215	1.00	23.05	C
ATOM	4130	O	GLN B 235	2.374	4.719	57.590	1.00	23.98	O
ATOM	4131	N	LEU B 236	0.886	6.400	57.590	1.00	22.82	N
ATOM	4133	CA	LEU B 236	0.026	5.735	58.538	1.00	23.20	C
ATOM	4135	CB	LEU B 236	-1.076	6.680	59.060	1.00	23.47	C
ATOM	4138	CG	LEU B 236	-1.770	6.162	60.325	1.00	24.46	C
ATOM	4140	CD1	LEU B 236	-0.990	6.692	61.552	1.00	25.96	C
ATOM	4144	CD2	LEU B 236	-3.250	6.563	60.375	1.00	24.55	C
ATOM	4148	C	LEU B 236	-0.597	4.450	57.954	1.00	22.92	C
ATOM	4149	O	LEU B 236	-0.760	3.489	58.692	1.00	22.71	O
ATOM	4150	N	GLN B 237	-0.947	4.434	56.666	1.00	22.75	N
ATOM	4152	CA	GLN B 237	-1.416	3.199	56.016	1.00	23.39	C
ATOM	4154	CB	GLN B 237	-1.772	3.419	54.546	1.00	23.78	C
ATOM	4157	CG	GLN B 237	-3.182	3.902	54.251	1.00	25.91	C
ATOM	4160	CD	GLN B 237	-3.594	3.668	52.779	1.00	28.07	C
ATOM	4161	OE1	GLN B 237	-2.728	3.480	51.913	1.00	31.17	O
ATOM	4162	NE2	GLN B 237	-4.901	3.668	52.504	1.00	26.41	N
ATOM	4165	C	GLN B 237	-0.301	2.154	56.082	1.00	23.26	C
ATOM	4166	O	GLN B 237	-0.547	0.993	56.381	1.00	22.61	O
ATOM	4167	N	CYS B 238	0.936	2.576	55.819	1.00	23.37	N
ATOM	4169	CA	CYS B 238	2.079	1.666	55.937	1.00	23.62	C
ATOM	4171	CB	CYS B 238	3.377	2.350	55.486	1.00	23.38	C
ATOM	4174	SG	CYS B 238	3.308	2.714	53.694	1.00	26.27	S
ATOM	4175	C	CYS B 238	2.187	1.057	57.353	1.00	23.48	C
ATOM	4176	O	CYS B 238	2.440	-0.130	57.474	1.00	22.84	O
ATOM	4177	N	ASN B 239	1.959	1.856	58.402	1.00	23.18	N
ATOM	4179	CA	ASN B 239	2.044	1.368	59.776	1.00	23.64	C
ATOM	4181	CB	ASN B 239	1.873	2.490	60.821	1.00	23.36	C
ATOM	4184	CG	ASN B 239	2.940	3.576	60.740	1.00	23.70	C
ATOM	4185	OD1	ASN B 239	4.021	3.372	60.189	1.00	26.52	O
ATOM	4186	ND2	ASN B 239	2.632	4.745	61.293	1.00	18.94	N
ATOM	4189	C	ASN B 239	0.948	0.334	60.019	1.00	24.56	C
ATOM	4190	O	ASN B 239	1.210	-0.709	60.599	1.00	24.51	O
ATOM	4191	N	LYS B 240	-0.281	0.633	59.593	1.00	25.29	N
ATOM	4193	CA	LYS B 240	-1.400	-0.308	59.742	1.00	26.55	C
ATOM	4195	CB	LYS B 240	-2.705	0.280	59.158	1.00	27.30	C
ATOM	4198	CG	LYS B 240	-3.245	1.536	59.894	1.00	29.04	C
ATOM	4201	CD	LYS B 240	-4.709	1.862	59.503	1.00	32.61	C
ATOM	4204	CE	LYS B 240	-4.870	2.417	58.053	1.00	34.49	C
ATOM	4207	NZ	LYS B 240	-4.339	3.837	57.829	1.00	34.32	N
ATOM	4211	C	LYS B 240	-1.090	-1.680	59.104	1.00	26.09	C
ATOM	4212	O	LYS B 240	-1.430	-2.707	59.653	1.00	26.05	O

ATOM	4213	N	ARG B 241	-0.396	-1.681	57.975	1.00	26.26	N
ATOM	4215	CA	ARG B 241	0.019	-2.911	57.288	1.00	26.59	C
ATOM	4217	CB	ARG B 241	0.645	-2.542	55.944	1.00	27.45	C
ATOM	4220	CG	ARG B 241	0.621	-3.619	54.921	1.00	30.60	C
ATOM	4223	CD	ARG B 241	1.824	-3.649	54.026	1.00	35.87	C
ATOM	4226	NE	ARG B 241	2.384	-5.002	53.975	1.00	41.15	N
ATOM	4228	CZ	ARG B 241	3.592	-5.301	53.511	1.00	43.64	C
ATOM	4229	NH1	ARG B 241	4.386	-4.361	53.019	1.00	43.07	N
ATOM	4232	NH2	ARG B 241	3.996	-6.562	53.534	1.00	46.66	N
ATOM	4235	C	ARG B 241	1.019	-3.733	58.111	1.00	25.70	C
ATOM	4236	O	ARG B 241	0.880	-4.944	58.249	1.00	26.52	O
ATOM	4237	N	SER B 242	2.023	-3.057	58.644	1.00	24.82	N
ATOM	4239	CA	SER B 242	2.947	-3.599	59.646	1.00	24.42	C
ATOM	4241	CB	SER B 242	3.849	-2.472	60.199	1.00	24.32	C
ATOM	4244	OG	SER B 242	4.828	-2.071	59.273	1.00	23.14	O
ATOM	4246	C	SER B 242	2.251	-4.249	60.847	1.00	24.21	C
ATOM	4247	O	SER B 242	2.718	-5.265	61.345	1.00	23.74	O
ATOM	4248	N	PHE B 243	1.179	-3.633	61.339	1.00	24.47	N
ATOM	4250	CA	PHE B 243	0.472	-4.161	62.511	1.00	25.38	C
ATOM	4252	CB	PHE B 243	-0.588	-3.201	63.095	1.00	25.27	C
ATOM	4255	CG	PHE B 243	-0.056	-1.848	63.543	1.00	26.76	C
ATOM	4256	CD1	PHE B 243	-0.953	-0.824	63.854	1.00	28.25	C
ATOM	4258	CE1	PHE B 243	-0.501	0.431	64.255	1.00	29.25	C
ATOM	4260	CZ	PHE B 243	0.873	0.685	64.347	1.00	28.33	C
ATOM	4262	CE2	PHE B 243	1.771	-0.317	64.058	1.00	27.74	C
ATOM	4264	CD2	PHE B 243	1.312	-1.580	63.654	1.00	27.96	C
ATOM	4266	C	PHE B 243	-0.211	-5.443	62.070	1.00	25.24	C
ATOM	4267	O	PHE B 243	-0.099	-6.440	62.748	1.00	25.43	O
ATOM	4268	N	SER B 244	-0.878	-5.392	60.916	1.00	25.73	N
ATOM	4270	CA	SER B 244	-1.553	-6.548	60.280	1.00	26.24	C
ATOM	4272	CB	SER B 244	-2.224	-6.123	58.967	1.00	26.59	C
ATOM	4275	OG	SER B 244	-3.539	-5.700	59.225	1.00	28.45	O
ATOM	4277	C	SER B 244	-0.670	-7.738	59.934	1.00	25.30	C
ATOM	4278	O	SER B 244	-1.139	-8.852	59.904	1.00	26.13	O
ATOM	4279	N	ASP B 245	0.593	-7.498	59.658	1.00	24.75	N
ATOM	4281	CA	ASP B 245	1.488	-8.568	59.255	1.00	24.52	C
ATOM	4283	CB	ASP B 245	2.363	-8.103	58.062	1.00	24.71	C
ATOM	4286	CG	ASP B 245	1.541	-7.759	56.829	1.00	25.49	C
ATOM	4287	OD1	ASP B 245	0.384	-8.228	56.688	1.00	28.15	O
ATOM	4288	OD2	ASP B 245	1.975	-7.013	55.941	1.00	30.97	O
ATOM	4289	C	ASP B 245	2.371	-9.044	60.410	1.00	23.74	C
ATOM	4290	O	ASP B 245	3.103	-10.035	60.246	1.00	23.57	O
ATOM	4291	N	GLN B 246	2.321	-8.354	61.560	1.00	22.64	N
ATOM	4293	CA	GLN B 246	3.081	-8.802	62.730	1.00	21.91	C
ATOM	4295	CB	GLN B 246	2.906	-7.887	63.958	1.00	21.50	C
ATOM	4298	CG	GLN B 246	3.515	-8.497	65.234	1.00	19.68	C
ATOM	4301	CD	GLN B 246	3.629	-7.541	66.413	1.00	18.64	C
ATOM	4302	OE1	GLN B 246	4.209	-6.458	66.312	1.00	15.04	O

ATOM	4303	NE2 GLN B 246	3.123	-7.972	67.550	1.00	18.09	N
ATOM	4306	C GLN B 246	2.759	-10.257	63.072	1.00	22.12	C
ATOM	4307	O GLN B 246	3.675	-11.022	63.322	1.00	22.39	O
ATOM	4308	N PROB 247	1.480	-10.653	63.073	1.00	22.38	N
ATOM	4309	CA PROB 247	1.110	-12.056	63.298	1.00	22.33	C
ATOM	4311	CB PROB 247	-0.421	-12.017	63.286	1.00	22.35	C
ATOM	4314	CG PROB 247	-0.801	-10.623	63.451	1.00	22.68	C
ATOM	4317	CD PROB 247	0.283	-9.814	62.878	1.00	22.40	C
ATOM	4320	C PROB 247	1.582	-13.077	62.254	1.00	22.55	C
ATOM	4321	O PROB 247	1.449	-14.277	62.506	1.00	22.98	O
ATOM	4322	N LYS B 248	2.061	-12.626	61.103	1.00	23.24	N
ATOM	4324	CA LYS B 248	2.555	-13.502	60.031	1.00	23.63	C
ATOM	4326	CB LYS B 248	2.325	-12.814	58.674	1.00	24.19	C
ATOM	4329	CG LYS B 248	0.825	-12.666	58.302	1.00	25.17	C
ATOM	4332	CD LYS B 248	0.664	-12.261	56.816	1.00	27.89	C
ATOM	4335	CE LYS B 248	-0.704	-11.655	56.518	1.00	29.11	C
ATOM	4338	NZ LYS B 248	-0.874	-10.310	57.134	1.00	29.48	N
ATOM	4342	C LYS B 248	4.044	-13.869	60.171	1.00	23.57	C
ATOM	4343	O LYS B 248	4.521	-14.818	59.538	1.00	22.55	O
ATOM	4344	N VAL B 249	4.766	-13.095	60.996	1.00	24.05	N
ATOM	4346	CA VAL B 249	6.222	-13.193	61.132	1.00	23.94	C
ATOM	4348	CB VAL B 249	6.834	-11.902	61.761	1.00	24.05	C
ATOM	4350	CG1 VAL B 249	8.364	-12.060	62.013	1.00	23.37	C
ATOM	4354	CG2 VAL B 249	6.554	-10.705	60.878	1.00	23.82	C
ATOM	4358	C VAL B 249	6.572	-14.385	62.003	1.00	24.33	C
ATOM	4359	O VAL B 249	5.925	-14.623	63.033	1.00	24.36	O
ATOM	4360	N THR B 250	7.584	-15.135	61.555	1.00	24.50	N
ATOM	4362	CA THR B 250	8.104	-16.291	62.274	1.00	24.40	C
ATOM	4364	CB THR B 250	9.238	-16.936	61.466	1.00	24.53	C
ATOM	4366	OG1 THR B 250	8.783	-17.193	60.132	1.00	25.59	O
ATOM	4368	CG2 THR B 250	9.596	-18.319	62.011	1.00	23.78	C
ATOM	4372	C THR B 250	8.635	-15.806	63.616	1.00	24.13	C
ATOM	4373	O THR B 250	9.579	-15.004	63.650	1.00	23.96	O
ATOM	4374	N PROB 251	8.027	-16.266	64.712	1.00	23.65	N
ATOM	4375	CA PROB 251	8.389	-15.781	66.054	1.00	23.24	C
ATOM	4377	CB PROB 251	7.638	-16.744	66.998	1.00	23.24	C
ATOM	4380	CG PROB 251	6.496	-17.284	66.199	1.00	23.40	C
ATOM	4383	CD PROB 251	6.946	-17.275	64.765	1.00	23.90	C
ATOM	4386	C PROB 251	9.889	-15.829	66.350	1.00	22.61	C
ATOM	4387	O PROB 251	10.600	-16.720	65.874	1.00	22.38	O
ATOM	4388	N TRP B 252	10.347	-14.866	67.135	1.00	22.13	N
ATOM	4390	CA TRP B 252	11.705	-14.860	67.651	1.00	22.14	C
ATOM	4392	CB TRP B 252	11.899	-13.608	68.505	1.00	21.80	C
ATOM	4395	CG TRP B 252	13.280	-13.365	69.064	1.00	19.35	C
ATOM	4396	CD1 TRP B 252	13.701	-13.617	70.338	1.00	16.85	C
ATOM	4398	NE1 TRP B 252	15.005	-13.221	70.495	1.00	14.85	N
ATOM	4400	CE2 TRP B 252	15.451	-12.683	69.319	1.00	14.93	C
ATOM	4401	CD2 TRP B 252	14.390	-12.753	68.395	1.00	16.95	C

ATOM	4402	CE3 TRP B 252	14.595 -12.244 67.100 1.00 16.75	C
ATOM	4404	CZ3 TRP B 252	15.838 -11.734 66.770 1.00 13.87	C
ATOM	4406	CH2 TRP B 252	16.863 -11.685 67.712 1.00 13.95	C
ATOM	4408	CZ2 TRP B 252	16.692 -12.150 68.991 1.00 13.78	C
ATOM	4410	C TRP B 252	11.902 -16.099 68.503 1.00 23.31	C
ATOM	4411	O TRP B 252	10.997 -16.473 69.256 1.00 23.18	O
ATOM	4412	N PRO B 253	13.053 -16.756 68.383 1.00 24.63	N
ATOM	4413	CA PRO B 253	13.362 -17.882 69.266 1.00 25.77	C
ATOM	4415	CB PRO B 253	14.642 -18.475 68.665 1.00 25.66	C
ATOM	4418	CG PRO B 253	15.268 -17.362 67.947 1.00 25.34	C
ATOM	4421	CD PRO B 253	14.138 -16.502 67.421 1.00 24.81	C
ATOM	4424	C PRO B 253	13.591 -17.385 70.693 1.00 26.95	C
ATOM	4425	O PRO B 253	14.543 -16.622 70.941 1.00 27.00	O
ATOM	4426	N LEU B 254	12.663 -17.746 71.581 1.00 28.19	N
ATOM	4428	CA LEU B 254	12.812 -17.553 73.013 1.00 29.17	C
ATOM	4430	CB LEU B 254	11.518 -17.075 73.660 1.00 29.19	C
ATOM	4433	CG LEU B 254	11.083 -15.687 73.198 1.00 30.29	C
ATOM	4435	CD1 LEU B 254	9.836 -15.774 72.315 1.00 30.93	C
ATOM	4439	CD2 LEU B 254	10.857 -14.748 74.388 1.00 31.32	C
ATOM	4443	C LEU B 254	13.120 -18.933 73.450 1.00 29.93	C
ATOM	4444	O LEU B 254	12.266 -19.616 74.003 1.00 30.33	O
ATOM	4445	N GLY B 255	14.323 -19.372 73.113 1.00 31.10	N
ATOM	4447	CA GLY B 255	14.742 -20.728 73.390 1.00 32.10	C
ATOM	4450	C GLY B 255	15.677 -20.662 74.568 1.00 33.02	C
ATOM	4451	O GLY B 255	16.004 -19.558 75.026 1.00 33.20	O
ATOM	4452	N ALA B 256	16.126 -21.821 75.052 1.00 33.82	N
ATOM	4454	CA ALA B 256	17.270 -21.843 75.961 1.00 34.52	C
ATOM	4456	CB ALA B 256	17.765 -23.266 76.194 1.00 34.47	C
ATOM	4460	C ALA B 256	18.410 -20.942 75.423 1.00 35.19	C
ATOM	4461	O ALA B 256	19.374 -20.677 76.153 1.00 35.52	O
ATOM	4462	N ASP B 257	18.295 -20.484 74.163 1.00 35.55	N
ATOM	4464	CA ASP B 257	19.240 -19.535 73.568 1.00 36.08	C
ATOM	4466	CB ASP B 257	19.051 -18.129 74.211 1.00 36.12	C
ATOM	4469	CG ASP B 257	20.329 -17.281 74.251 1.00 36.27	C
ATOM	4470	OD1 ASP B 257	20.545 -16.443 73.345 1.00 35.49	O
ATOM	4471	OD2 ASP B 257	21.155 -17.350 75.190 1.00 36.08	O
ATOM	4472	C ASP B 257	20.634 -20.154 73.750 1.00 36.42	C
ATOM	4473	O ASP B 257	21.530 -19.540 74.339 1.00 36.88	O
ATOM	4474	N PRO B 258	20.816 -21.387 73.252 1.00 36.48	N
ATOM	4475	CA PRO B 258	21.956 -22.221 73.671 1.00 36.39	C
ATOM	4477	CB PRO B 258	21.489 -23.661 73.344 1.00 36.32	C
ATOM	4480	CG PRO B 258	20.159 -23.524 72.607 1.00 36.44	C
ATOM	4483	CD PRO B 258	20.002 -22.072 72.228 1.00 36.58	C
ATOM	4486	C PRO B 258	23.279 -21.888 72.959 1.00 36.22	C
ATOM	4487	O PRO B 258	24.207 -22.713 72.995 1.00 36.30	O
ATOM	4488	N GLN B 259	23.353 -20.699 72.348 1.00 35.91	N
ATOM	4490	CA GLN B 259	24.514 -20.251 71.572 1.00 35.69	C
ATOM	4492	CB GLN B 259	25.704 -19.958 72.490 1.00 35.83	C

78

ATOM	4495	CG	GLN B 259	25.427	-18.774	73.430	1.00	36.12	C
ATOM	4498	CD	GLN B 259	25.495	-19.144	74.896	1.00	35.62	C
ATOM	4499	OE1	GLN B 259	25.270	-20.297	75.275	1.00	35.62	O
ATOM	4500	NE2	GLN B 259	25.799	-18.162	75.729	1.00	35.86	N
ATOM	4503	C	GLN B 259	24.842	-21.283	70.497	1.00	34.89	C
ATOM	4504	O	GLN B 259	25.984	-21.750	70.364	1.00	35.10	O
ATOM	4505	N	SER B 260	23.791	-21.640	69.762	1.00	33.52	N
ATOM	4507	CA	SER B 260	23.855	-22.620	68.699	1.00	32.46	C
ATOM	4509	CB	SER B 260	22.708	-23.628	68.833	1.00	32.56	C
ATOM	4512	OG	SER B 260	21.448	-22.968	68.777	1.00	32.50	O
ATOM	4514	C	SER B 260	23.748	-21.883	67.374	1.00	31.34	C
ATOM	4515	O	SER B 260	23.240	-20.759	67.309	1.00	30.83	O
ATOM	4516	N	ALA B 261	24.237	-22.540	66.329	1.00	30.11	N
ATOM	4518	CA	ALA B 261	24.208	-22.016	64.972	1.00	29.32	C
ATOM	4520	CB	ALA B 261	25.044	-22.920	64.061	1.00	29.26	C
ATOM	4524	C	ALA B 261	22.770	-21.897	64.443	1.00	28.44	C
ATOM	4525	O	ALA B 261	22.459	-21.018	63.645	1.00	28.46	O
ATOM	4526	N	ASP B 262	21.898	-22.778	64.918	1.00	27.37	N
ATOM	4528	CA	ASP B 262	20.532	-22.883	64.411	1.00	26.27	C
ATOM	4530	CB	ASP B 262	19.888	-24.175	64.952	1.00	26.40	C
ATOM	4533	CG	ASP B 262	19.008	-24.859	63.934	1.00	27.38	C
ATOM	4534	OD1	ASP B 262	18.418	-24.150	63.085	1.00	29.79	O
ATOM	4535	OD2	ASP B 262	18.851	-26.101	63.908	1.00	28.42	O
ATOM	4536	C	ASP B 262	19.673	-21.674	64.791	1.00	24.73	C
ATOM	4537	O	ASP B 262	18.939	-21.145	63.969	1.00	24.75	O
ATOM	4538	N	ALA B 263	19.774	-21.260	66.048	1.00	23.14	N
ATOM	4540	CA	ALA B 263	18.944	-20.202	66.599	1.00	22.15	C
ATOM	4542	CB	ALA B 263	18.957	-20.275	68.119	1.00	22.02	C
ATOM	4546	C	ALA B 263	19.414	-18.823	66.125	1.00	21.47	C
ATOM	4547	O	ALA B 263	18.620	-17.889	66.022	1.00	21.01	O
ATOM	4548	N	ARG B 264	20.709	-18.702	65.845	1.00	20.63	N
ATOM	4550	CA	ARG B 264	21.258	-17.489	65.256	1.00	20.10	C
ATOM	4552	CB	ARG B 264	22.775	-17.604	65.155	1.00	20.12	C
ATOM	4555	CG	ARG B 264	23.494	-16.291	65.024	1.00	20.98	C
ATOM	4558	CD	ARG B 264	24.813	-16.375	64.286	1.00	23.02	C
ATOM	4561	NE	ARG B 264	25.699	-17.411	64.823	1.00	25.21	N
ATOM	4563	CZ	ARG B 264	26.969	-17.588	64.463	1.00	27.21	C
ATOM	4564	NH1	ARG B 264	27.546	-16.798	63.559	1.00	29.00	N
ATOM	4567	NH2	ARG B 264	27.673	-18.560	65.011	1.00	28.37	N
ATOM	4570	C	ARG B 264	20.650	-17.277	63.872	1.00	19.30	C
ATOM	4571	O	ARG B 264	20.258	-16.174	63.528	1.00	18.85	O
ATOM	4572	N	GLN B 265	20.575	-18.347	63.088	1.00	18.93	N
ATOM	4574	CA	GLN B 265	19.962	-18.292	61.753	1.00	18.74	C
ATOM	4576	CB	GLN B 265	20.125	-19.639	61.019	1.00	18.95	C
ATOM	4579	CG	GLN B 265	19.433	-19.732	59.638	1.00	20.26	C
ATOM	4582	CD	GLN B 265	19.893	-18.661	58.646	1.00	22.64	C
ATOM	4583	OE1	GLN B 265	21.032	-18.702	58.167	1.00	25.12	O
ATOM	4584	NE2	GLN B 265	19.007	-17.709	58.329	1.00	22.08	N

ATOM	4587	C	GLN B 265	18.488	-17.927	61.836	1.00	17.60	C
ATOM	4588	O	GLN B 265	17.977	-17.266	60.955	1.00	16.14	O
ATOM	4589	N	GLN B 266	17.824	-18.391	62.900	1.00	17.56	N
ATOM	4591	CA	GLN B 266	16.400	-18.156	63.125	1.00	17.35	C
ATOM	4593	CB	GLN B 266	15.840	-19.078	64.220	1.00	17.65	C
ATOM	4596	CG	GLN B 266	14.968	-20.222	63.691	1.00	19.14	C
ATOM	4599	CD	GLN B 266	14.811	-21.357	64.688	1.00	21.41	C
ATOM	4600	OE1	GLN B 266	14.589	-21.119	65.882	1.00	23.11	O
ATOM	4601	NE2	GLN B 266	14.943	-22.593	64.210	1.00	22.10	N
ATOM	4604	C	GLN B 266	16.187	-16.694	63.471	1.00	16.86	C
ATOM	4605	O	GLN B 266	15.277	-16.067	62.947	1.00	16.83	O
ATOM	4606	N	ARG B 267	17.060	-16.129	64.297	1.00	16.43	N
ATOM	4608	CA	ARG B 267	16.993	-14.688	64.582	1.00	16.37	C
ATOM	4610	CB	ARG B 267	18.019	-14.294	65.636	1.00	16.42	C
ATOM	4613	CG	ARG B 267	17.745	-14.848	67.025	1.00	17.67	C
ATOM	4616	CD	ARG B 267	18.814	-14.433	68.007	1.00	19.76	C
ATOM	4619	NE	ARG B 267	18.716	-15.140	69.269	1.00	23.24	N
ATOM	4621	CZ	ARG B 267	19.565	-16.072	69.689	1.00	24.98	C
ATOM	4622	NH1	ARG B 267	20.611	-16.436	68.947	1.00	25.98	N
ATOM	4625	NH2	ARG B 267	19.363	-16.658	70.864	1.00	24.91	N
ATOM	4628	C	ARG B 267	17.199	-13.830	63.324	1.00	15.95	C
ATOM	4629	O	ARG B 267	16.438	-12.891	63.066	1.00	14.76	O
ATOM	4630	N	PHE B 268	18.236	-14.169	62.554	1.00	15.75	N
ATOM	4632	CA	PHE B 268	18.576	-13.453	61.332	1.00	15.52	C
ATOM	4634	CB	PHE B 268	19.848	-14.018	60.714	1.00	15.76	C
ATOM	4637	CG	PHE B 268	20.221	-13.377	59.413	1.00	18.35	C
ATOM	4638	CD1	PHE B 268	20.871	-12.145	59.387	1.00	20.04	C
ATOM	4640	CE1	PHE B 268	21.209	-11.558	58.182	1.00	19.94	C
ATOM	4642	CZ	PHE B 268	20.886	-12.196	56.979	1.00	20.77	C
ATOM	4644	CE2	PHE B 268	20.242	-13.402	56.991	1.00	20.76	C
ATOM	4646	CD2	PHE B 268	19.904	-13.994	58.202	1.00	20.40	C
ATOM	4648	C	PHE B 268	17.426	-13.531	60.349	1.00	14.78	C
ATOM	4649	O	PHE B 268	17.014	-12.527	59.817	1.00	15.24	O
ATOM	4650	N	ALA B 269	16.887	-14.721	60.136	1.00	14.47	N
ATOM	4652	CA	ALA B 269	15.734	-14.913	59.251	1.00	13.87	C
ATOM	4654	CB	ALA B 269	15.363	-16.406	59.185	1.00	13.62	C
ATOM	4658	C	ALA B 269	14.525	-14.089	59.692	1.00	13.39	C
ATOM	4659	O	ALA B 269	13.875	-13.476	58.866	1.00	13.14	O
ATOM	4660	N	HIS B 270	14.231	-14.088	60.992	1.00	13.45	N
ATOM	4662	CA	HIS B 270	13.147	-13.280	61.567	1.00	13.97	C
ATOM	4664	CB	HIS B 270	13.043	-13.562	63.081	1.00	14.07	C
ATOM	4667	CG	HIS B 270	12.230	-12.560	63.854	1.00	15.14	C
ATOM	4668	ND1	HIS B 270	10.972	-12.842	64.354	1.00	17.36	N
ATOM	4670	CE1	HIS B 270	10.509	-11.792	65.010	1.00	15.22	C
ATOM	4672	NE2	HIS B 270	11.426	-10.842	64.962	1.00	16.27	N
ATOM	4674	CD2	HIS B 270	12.517	-11.302	64.262	1.00	14.66	C
ATOM	4676	C	HIS B 270	13.371	-11.766	61.258	1.00	14.16	C
ATOM	4677	O	HIS B 270	12.450	-11.036	60.865	1.00	13.52	O

ATOM	4678	N	PHE B 271	14.606	-11.312	61.398	1.00	14.37	N
ATOM	4680	CA	PHE B 271	14.938	-9.950	61.014	1.00	15.70	C
ATOM	4682	CB	PHE B 271	16.350	-9.577	61.477	1.00	15.92	C
ATOM	4685	CG	PHE B 271	16.438	-9.153	62.936	1.00	17.25	C
ATOM	4686	CD1	PHE B 271	15.458	-8.373	63.527	1.00	18.99	C
ATOM	4688	CE1	PHE B 271	15.570	-7.977	64.852	1.00	18.97	C
ATOM	4690	CZ	PHE B 271	16.657	-8.352	65.600	1.00	18.58	C
ATOM	4692	CE2	PHE B 271	17.632	-9.115	65.030	1.00	19.00	C
ATOM	4694	CD2	PHE B 271	17.520	-9.517	63.700	1.00	18.47	C
ATOM	4696	C	PHE B 271	14.783	-9.695	59.505	1.00	16.17	C
ATOM	4697	O	PHE B 271	14.345	-8.598	59.103	1.00	16.51	O
ATOM	4698	N	THR B 272	15.112	-10.679	58.662	1.00	15.92	N
ATOM	4700	CA	THR B 272	15.001	-10.440	57.229	1.00	15.60	C
ATOM	4702	CB	THR B 272	15.661	-11.557	56.360	1.00	15.19	C
ATOM	4704	OG1	THR B 272	15.064	-12.828	56.621	1.00	15.06	O
ATOM	4706	CG2	THR B 272	17.137	-11.762	56.702	1.00	14.81	C
ATOM	4710	C	THR B 272	13.521	-10.231	56.881	1.00	16.01	C
ATOM	4711	O	THR B 272	13.219	-9.511	55.943	1.00	16.04	O
ATOM	4712	N	GLU B 273	12.607	-10.837	57.645	1.00	16.31	N
ATOM	4714	CA	GLU B 273	11.168	-10.707	57.389	1.00	16.91	C
ATOM	4716	CB	GLU B 273	10.392	-11.783	58.155	1.00	17.59	C
ATOM	4719	CG	GLU B 273	10.741	-13.200	57.716	1.00	19.28	C
ATOM	4722	CD	GLU B 273	9.899	-14.259	58.396	1.00	22.41	C
ATOM	4723	OE1	GLU B 273	10.308	-15.457	58.416	1.00	22.79	O
ATOM	4724	OE2	GLU B 273	8.823	-13.892	58.916	1.00	25.21	O
ATOM	4725	C	GLU B 273	10.635	-9.325	57.752	1.00	17.10	C
ATOM	4726	O	GLU B 273	9.854	-8.736	57.001	1.00	17.36	O
ATOM	4727	N	LEU B 274	11.059	-8.789	58.901	1.00	17.58	N
ATOM	4729	CA	LEU B 274	10.823	-7.373	59.181	1.00	17.80	C
ATOM	4731	CB	LEU B 274	11.429	-6.921	60.502	1.00	17.99	C
ATOM	4734	CG	LEU B 274	10.954	-7.596	61.795	1.00	19.69	C
ATOM	4736	CD1	LEU B 274	11.232	-6.739	63.002	1.00	18.59	C
ATOM	4740	CD2	LEU B 274	9.485	-8.001	61.738	1.00	21.65	C
ATOM	4744	C	LEU B 274	11.330	-6.488	58.052	1.00	17.31	C
ATOM	4745	O	LEU B 274	10.626	-5.603	57.639	1.00	17.76	O
ATOM	4746	N	ALA B 275	12.524	-6.743	57.539	1.00	17.48	N
ATOM	4748	CA	ALA B 275	13.124	-5.906	56.467	1.00	17.61	C
ATOM	4750	CB	ALA B 275	14.604	-6.314	56.187	1.00	17.30	C
ATOM	4754	C	ALA B 275	12.318	-6.012	55.193	1.00	17.19	C
ATOM	4755	O	ALA B 275	12.125	-5.025	54.507	1.00	16.75	O
ATOM	4756	N	ILE B 276	11.826	-7.213	54.911	1.00	17.43	N
ATOM	4758	CA	ILE B 276	11.006	-7.449	53.737	1.00	17.71	C
ATOM	4760	CB	ILE B 276	10.719	-8.928	53.574	1.00	17.62	C
ATOM	4762	CG1	ILE B 276	11.942	-9.601	52.945	1.00	18.32	C
ATOM	4765	CD1	ILE B 276	11.872	-11.116	52.939	1.00	18.55	C
ATOM	4769	CG2	ILE B 276	9.473	-9.168	52.682	1.00	16.70	C
ATOM	4773	C	ILE B 276	9.721	-6.663	53.873	1.00	18.56	C
ATOM	4774	O	ILE B 276	9.284	-6.018	52.911	1.00	19.96	O

ATOM	4775	N	ILE B 277	9.119	-6.696	55.058	1.00	18.40	N
ATOM	4777	CA	ILE B 277	7.925	-5.909	55.283	1.00	18.33	C
ATOM	4779	CB	ILE B 277	7.373	-6.111	56.683	1.00	18.46	C
ATOM	4781	CG1	ILE B 277	6.690	-7.475	56.763	1.00	19.14	C
ATOM	4784	CD1	ILE B 277	6.360	-7.874	58.165	1.00	20.33	C
ATOM	4788	CG2	ILE B 277	6.358	-5.040	57.058	1.00	17.80	C
ATOM	4792	C	ILE B 277	8.207	-4.447	55.013	1.00	18.33	C
ATOM	4793	O	ILE B 277	7.402	-3.795	54.374	1.00	18.06	O
ATOM	4794	N	SER B 278	9.332	-3.920	55.494	1.00	18.03	N
ATOM	4796	CA	SER B 278	9.593	-2.492	55.342	1.00	18.30	C
ATOM	4798	CB	SER B 278	10.753	-2.052	56.225	1.00	18.70	C
ATOM	4801	OG	SER B 278	10.934	-0.637	56.159	1.00	18.72	O
ATOM	4803	C	SER B 278	9.911	-2.168	53.879	1.00	18.90	C
ATOM	4804	O	SER B 278	9.466	-1.177	53.357	1.00	19.41	O
ATOM	4805	N	VAL B 279	10.680	-3.012	53.206	1.00	19.42	N
ATOM	4807	CA	VAL B 279	11.012	-2.720	51.823	1.00	19.96	C
ATOM	4809	CB	VAL B 279	12.030	-3.732	51.247	1.00	19.75	C
ATOM	4811	CG1	VAL B 279	12.083	-3.671	49.709	1.00	17.20	C
ATOM	4815	CG2	VAL B 279	13.388	-3.489	51.874	1.00	18.66	C
ATOM	4819	C	VAL B 279	9.728	-2.646	50.988	1.00	20.32	C
ATOM	4820	O	VAL B 279	9.595	-1.771	50.172	1.00	20.05	O
ATOM	4821	N	GLN B 280	8.789	-3.558	51.201	1.00	21.26	N
ATOM	4823	CA	GLN B 280	7.540	-3.519	50.447	1.00	21.95	C
ATOM	4825	CB	GLN B 280	6.728	-4.769	50.683	1.00	22.34	C
ATOM	4828	CG	GLN B 280	7.296	-5.958	49.972	1.00	25.42	C
ATOM	4831	CD	GLN B 280	6.595	-7.256	50.299	1.00	28.38	C
ATOM	4832	OE1	GLN B 280	5.971	-7.390	51.352	1.00	29.60	O
ATOM	4833	NE2	GLN B 280	6.699	-8.227	49.387	1.00	29.80	N
ATOM	4836	C	GLN B 280	6.717	-2.270	50.765	1.00	22.09	C
ATOM	4837	O	GLN B 280	6.164	-1.671	49.849	1.00	22.73	O
ATOM	4838	N	GLU B 281	6.651	-1.856	52.034	1.00	21.59	N
ATOM	4840	CA	GLU B 281	5.911	-0.637	52.394	1.00	21.72	C
ATOM	4842	CB	GLU B 281	5.853	-0.428	53.910	1.00	21.87	C
ATOM	4845	CG	GLU B 281	5.049	-1.473	54.655	1.00	22.25	C
ATOM	4848	CD	GLU B 281	5.202	-1.371	56.171	1.00	21.71	C
ATOM	4849	OE1	GLU B 281	5.975	-0.509	56.668	1.00	17.81	O
ATOM	4850	OE2	GLU B 281	4.529	-2.164	56.865	1.00	19.03	O
ATOM	4851	C	GLU B 281	6.531	0.603	51.745	1.00	21.36	C
ATOM	4852	O	GLU B 281	5.816	1.473	51.300	1.00	20.72	O
ATOM	4853	N	ILE B 282	7.860	0.669	51.696	1.00	21.78	N
ATOM	4855	CA	ILE B 282	8.579	1.799	51.062	1.00	22.00	C
ATOM	4857	CB	ILE B 282	10.080	1.695	51.321	1.00	21.32	C
ATOM	4859	CG1	ILE B 282	10.371	2.117	52.750	1.00	21.12	C
ATOM	4862	CD1	ILE B 282	11.700	1.678	53.247	1.00	22.57	C
ATOM	4866	CG2	ILE B 282	10.872	2.584	50.387	1.00	21.98	C
ATOM	4870	C	ILE B 282	8.268	1.956	49.556	1.00	22.01	C
ATOM	4871	O	ILE B 282	8.086	3.063	49.090	1.00	21.16	O
ATOM	4872	N	VAL B 283	8.220	0.843	48.829	1.00	22.96	N

82

ATOM	4874	CA	VAL B 283	7.785	0.790	47.429	1.00	23.47	C
ATOM	4876	CB	VAL B 283	7.700	-0.694	46.911	1.00	24.31	C
ATOM	4878	CG1	VAL B 283	6.896	-0.801	45.603	1.00	23.97	C
ATOM	4882	CG2	VAL B 283	9.083	-1.331	46.734	1.00	24.06	C
ATOM	4886	C	VAL B 283	6.390	1.409	47.316	1.00	23.71	C
ATOM	4887	O	VAL B 283	6.188	2.338	46.552	1.00	24.05	O
ATOM	4888	N	ASP B 284	5.429	0.919	48.096	1.00	23.71	N
ATOM	4890	CA	ASP B 284	4.066	1.492	48.091	1.00	23.80	C
ATOM	4892	CB	ASP B 284	3.112	0.675	48.960	1.00	24.45	C
ATOM	4895	CG	ASP B 284	2.905	-0.718	48.428	1.00	26.79	C
ATOM	4896	OD1	ASP B 284	2.521	-1.580	49.242	1.00	32.73	O
ATOM	4897	OD2	ASP B 284	3.115	-1.036	47.237	1.00	26.84	O
ATOM	4898	C	ASP B 284	3.993	2.935	48.557	1.00	22.85	C
ATOM	4899	O	ASP B 284	3.293	3.733	47.975	1.00	23.18	O
ATOM	4900	N	PHE B 285	4.699	3.276	49.611	1.00	21.83	N
ATOM	4902	CA	PHE B 285	4.708	4.665	50.043	1.00	21.89	C
ATOM	4904	CB	PHE B 285	5.583	4.818	51.275	1.00	21.24	C
ATOM	4907	CG	PHE B 285	5.789	6.228	51.707	1.00	20.61	C
ATOM	4908	CD1	PHE B 285	4.854	6.870	52.493	1.00	20.19	C
ATOM	4910	CE1	PHE B 285	5.056	8.153	52.915	1.00	18.83	C
ATOM	4912	CZ	PHE B 285	6.207	8.810	52.548	1.00	19.67	C
ATOM	4914	CE2	PHE B 285	7.155	8.168	51.776	1.00	18.93	C
ATOM	4916	CD2	PHE B 285	6.949	6.894	51.379	1.00	20.46	C
ATOM	4918	C	PHE B 285	5.181	5.603	48.924	1.00	21.93	C
ATOM	4919	O	PHE B 285	4.623	6.663	48.736	1.00	21.82	O
ATOM	4920	N	ALA B 286	6.185	5.202	48.163	1.00	22.60	N
ATOM	4922	CA	ALA B 286	6.797	6.117	47.195	1.00	23.49	C
ATOM	4924	CB	ALA B 286	8.104	5.573	46.675	1.00	23.96	C
ATOM	4928	C	ALA B 286	5.844	6.475	46.050	1.00	23.30	C
ATOM	4929	O	ALA B 286	5.882	7.594	45.549	1.00	21.88	O
ATOM	4930	N	LYS B 287	4.969	5.547	45.682	1.00	24.38	N
ATOM	4932	CA	LYS B 287	3.907	5.836	44.705	1.00	25.52	C
ATOM	4934	CB	LYS B 287	3.044	4.604	44.349	1.00	26.06	C
ATOM	4937	CG	LYS B 287	3.732	3.240	44.182	1.00	28.53	C
ATOM	4940	CD	LYS B 287	4.511	3.082	42.883	1.00	31.79	C
ATOM	4943	CE	LYS B 287	4.644	1.579	42.414	1.00	32.44	C
ATOM	4946	NZ	LYS B 287	3.774	0.604	43.161	1.00	31.88	N
ATOM	4950	C	LYS B 287	2.934	6.917	45.179	1.00	25.60	C
ATOM	4951	O	LYS B 287	2.231	7.510	44.362	1.00	25.69	O
ATOM	4952	N	GLN B 288	2.845	7.102	46.499	1.00	25.59	N
ATOM	4954	CA	GLN B 288	1.929	8.052	47.129	1.00	25.14	C
ATOM	4956	CB	GLN B 288	1.466	7.533	48.507	1.00	24.91	C
ATOM	4959	CG	GLN B 288	0.625	6.276	48.456	1.00	25.08	C
ATOM	4962	CD	GLN B 288	-0.648	6.436	47.620	1.00	27.43	C
ATOM	4963	OE1	GLN B 288	-1.299	7.491	47.660	1.00	29.70	O
ATOM	4964	NE2	GLN B 288	-0.981	5.418	46.833	1.00	24.98	N
ATOM	4967	C	GLN B 288	2.576	9.409	47.326	1.00	24.85	C
ATOM	4968	O	GLN B 288	1.890	10.361	47.686	1.00	25.19	O

ATOM	4969	N	VAL B 289	3.893	9.489	47.135	1.00	24.19	N
ATOM	4971	CA	VAL B 289	4.621	10.739	47.252	1.00	23.51	C
ATOM	4973	CB	VAL B 289	6.150	10.518	47.404	1.00	23.87	C
ATOM	4975	CG1	VAL B 289	6.874	11.843	47.503	1.00	24.01	C
ATOM	4979	CG2	VAL B 289	6.457	9.714	48.670	1.00	23.94	C
ATOM	4983	C	VAL B 289	4.368	11.570	46.014	1.00	23.42	C
ATOM	4984	O	VAL B 289	4.770	11.169	44.914	1.00	23.53	O
ATOM	4985	N	PRO B 290	3.707	12.725	46.161	1.00	22.39	N
ATOM	4986	CA	PRO B 290	3.448	13.592	45.005	1.00	21.62	C
ATOM	4988	CB	PRO B 290	2.856	14.866	45.649	1.00	22.00	C
ATOM	4991	CG	PRO B 290	2.174	14.361	46.864	1.00	21.47	C
ATOM	4994	CD	PRO B 290	3.116	13.283	47.391	1.00	22.05	C
ATOM	4997	C	PRO B 290	4.688	13.901	44.168	1.00	20.84	C
ATOM	4998	O	PRO B 290	5.726	14.371	44.658	1.00	21.04	O
ATOM	4999	N	GLY B 291	4.569	13.619	42.879	1.00	19.91	N
ATOM	5001	CA	GLY B 291	5.663	13.767	41.951	1.00	18.79	C
ATOM	5004	C	GLY B 291	6.398	12.474	41.612	1.00	18.26	C
ATOM	5005	O	GLY B 291	7.054	12.382	40.585	1.00	18.74	O
ATOM	5006	N	PHE B 292	6.351	11.464	42.455	1.00	17.97	N
ATOM	5008	CA	PHE B 292	7.223	10.316	42.204	1.00	17.81	C
ATOM	5010	CB	PHE B 292	7.147	9.314	43.346	1.00	17.81	C
ATOM	5013	CG	PHE B 292	8.097	8.164	43.218	1.00	15.70	C
ATOM	5014	CD1	PHE B 292	9.436	8.339	43.477	1.00	14.75	C
ATOM	5016	CE1	PHE B 292	10.322	7.306	43.370	1.00	12.99	C
ATOM	5018	CZ	PHE B 292	9.868	6.065	43.025	1.00	15.22	C
ATOM	5020	CE2	PHE B 292	8.518	5.855	42.754	1.00	14.12	C
ATOM	5022	CD2	PHE B 292	7.641	6.910	42.864	1.00	14.10	C
ATOM	5024	C	PHE B 292	6.834	9.652	40.900	1.00	18.05	C
ATOM	5025	O	PHE B 292	7.695	9.244	40.133	1.00	17.83	O
ATOM	5026	N	LEU B 293	5.527	9.585	40.640	1.00	19.39	N
ATOM	5028	CA	LEU B 293	5.001	8.887	39.456	1.00	19.72	C
ATOM	5030	CB	LEU B 293	3.526	8.460	39.652	1.00	19.64	C
ATOM	5033	CG	LEU B 293	3.268	7.255	40.598	1.00	19.21	C
ATOM	5035	CD1	LEU B 293	1.807	6.829	40.550	1.00	16.19	C
ATOM	5039	CD2	LEU B 293	4.197	6.054	40.297	1.00	17.72	C
ATOM	5043	C	LEU B 293	5.207	9.630	38.130	1.00	19.37	C
ATOM	5044	O	LEU B 293	5.014	9.058	37.080	1.00	19.61	O
ATOM	5045	N	GLN B 294	5.622	10.884	38.193	1.00	20.20	N
ATOM	5047	CA	GLN B 294	5.975	11.664	37.008	1.00	21.50	C
ATOM	5049	CB	GLN B 294	5.966	13.183	37.332	1.00	22.59	C
ATOM	5052	CG	GLN B 294	4.564	13.821	37.595	1.00	27.10	C
ATOM	5055	CD	GLN B 294	4.654	15.198	38.308	1.00	33.39	C
ATOM	5056	OE1	GLN B 294	5.554	16.012	38.022	1.00	38.40	O
ATOM	5057	NE2	GLN B 294	3.721	15.449	39.237	1.00	37.44	N
ATOM	5060	C	GLN B 294	7.368	11.312	36.468	1.00	21.10	C
ATOM	5061	O	GLN B 294	7.672	11.635	35.314	1.00	21.09	O
ATOM	5062	N	LEU B 295	8.238	10.703	37.289	1.00	19.82	N
ATOM	5064	CA	LEU B 295	9.543	10.261	36.788	1.00	19.71	C

ATOM	5066	CB	LEU B 295	10.538	9.970	37.924	1.00	20.43	C
ATOM	5069	CG	LEU B 295	10.846	11.084	38.906	1.00	21.71	C
ATOM	5071	CD1	LEU B 295	11.603	10.523	40.085	1.00	23.72	C
ATOM	5075	CD2	LEU B 295	11.615	12.198	38.214	1.00	23.91	C
ATOM	5079	C	LEU B 295	9.337	9.012	35.972	1.00	18.12	C
ATOM	5080	O	LEU B 295	8.359	8.281	36.192	1.00	18.00	O
ATOM	5081	N	GLY B 296	10.224	8.785	35.011	1.00	17.34	N
ATOM	5083	CA	GLY B 296	10.260	7.531	34.259	1.00	17.08	C
ATOM	5086	C	GLY B 296	10.459	6.338	35.181	1.00	16.81	C
ATOM	5087	O	GLY B 296	10.996	6.491	36.251	1.00	16.26	O
ATOM	5088	N	ARG B 297	9.991	5.157	34.797	1.00	17.84	N
ATOM	5090	CA	ARG B 297	10.085	3.999	35.679	1.00	18.97	C
ATOM	5092	CB	ARG B 297	9.340	2.765	35.152	1.00	19.44	C
ATOM	5095	CG	ARG B 297	9.369	1.623	36.191	1.00	25.58	C
ATOM	5098	CD	ARG B 297	8.029	0.943	36.521	1.00	33.49	C
ATOM	5101	NE	ARG B 297	8.213	-0.388	37.146	1.00	38.59	N
ATOM	5103	CZ	ARG B 297	8.667	-1.484	36.503	1.00	40.41	C
ATOM	5104	NH1	ARG B 297	8.988	-1.443	35.217	1.00	40.97	N
ATOM	5107	NH2	ARG B 297	8.799	-2.639	37.158	1.00	41.67	N
ATOM	5110	C	ARG B 297	11.533	3.615	36.020	1.00	17.76	C
ATOM	5111	O	ARG B 297	11.780	3.095	37.094	1.00	16.79	O
ATOM	5112	N	GLU B 298	12.470	3.863	35.117	1.00	17.36	N
ATOM	5114	CA	GLU B 298	13.872	3.510	35.382	1.00	17.32	C
ATOM	5116	CB	GLU B 298	14.722	3.476	34.100	1.00	17.52	C
ATOM	5119	CG	GLU B 298	14.462	2.202	33.275	1.00	18.16	C
ATOM	5122	CD	GLU B 298	15.096	2.207	31.886	1.00	21.18	C
ATOM	5123	OE1	GLU B 298	15.119	3.301	31.259	1.00	22.69	O
ATOM	5124	OE2	GLU B 298	15.581	1.121	31.428	1.00	18.63	O
ATOM	5125	C	GLU B 298	14.476	4.392	36.465	1.00	17.16	C
ATOM	5126	O	GLU B 298	15.283	3.896	37.245	1.00	17.40	O
ATOM	5127	N	ASP B 299	14.053	5.653	36.563	1.00	16.22	N
ATOM	5129	CA	ASP B 299	14.505	6.534	37.640	1.00	16.84	C
ATOM	5131	CB	ASP B 299	14.263	7.996	37.279	1.00	17.23	C
ATOM	5134	CG	ASP B 299	15.325	8.571	36.351	1.00	19.38	C
ATOM	5135	OD1	ASP B 299	16.320	7.892	36.011	1.00	18.73	O
ATOM	5136	OD2	ASP B 299	15.225	9.726	35.892	1.00	23.85	O
ATOM	5137	C	ASP B 299	13.812	6.266	39.012	1.00	16.95	C
ATOM	5138	O	ASP B 299	14.425	6.447	40.047	1.00	15.53	O
ATOM	5139	N	GLN B 300	12.533	5.891	39.000	1.00	16.90	N
ATOM	5141	CA	GLN B 300	11.806	5.454	40.191	1.00	16.81	C
ATOM	5143	CB	GLN B 300	10.405	4.978	39.804	1.00	16.86	C
ATOM	5146	CG	GLN B 300	9.455	6.063	39.266	1.00	17.75	C
ATOM	5149	CD	GLN B 300	8.125	5.493	38.770	1.00	16.43	C
ATOM	5150	OE1	GLN B 300	7.711	4.452	39.234	1.00	16.78	O
ATOM	5151	NE2	GLN B 300	7.472	6.175	37.817	1.00	13.03	N
ATOM	5154	C	GLN B 300	12.556	4.277	40.822	1.00	17.48	C
ATOM	5155	O	GLN B 300	12.809	4.251	42.021	1.00	16.85	O
ATOM	5156	N	ILE B 301	12.898	3.303	39.988	1.00	17.63	N

ATOM	5158	CA	ILE B 301	13.665	2.145	40.401	1.00	18.03	C
ATOM	5160	CB	ILE B 301	13.857	1.175	39.199	1.00	18.58	C
ATOM	5162	CG1	ILE B 301	12.519	0.475	38.861	1.00	19.45	C
ATOM	5165	CD1	ILE B 301	12.484	-0.080	37.456	1.00	19.64	C
ATOM	5169	CG2	ILE B 301	14.899	0.096	39.512	1.00	18.33	C
ATOM	5173	C	ILE B 301	15.017	2.579	41.002	1.00	17.95	C
ATOM	5174	O	ILE B 301	15.361	2.151	42.109	1.00	17.99	O
ATOM	5175	N	ALA B 302	15.740	3.461	40.304	1.00	16.92	N
ATOM	5177	CA	ALA B 302	17.058	3.902	40.742	1.00	16.34	C
ATOM	5179	CB	ALA B 302	17.698	4.738	39.702	1.00	16.84	C
ATOM	5183	C	ALA B 302	17.019	4.654	42.052	1.00	16.05	C
ATOM	5184	O	ALA B 302	17.828	4.414	42.935	1.00	15.80	O
ATOM	5185	N	LEU B 303	16.068	5.556	42.183	1.00	17.14	N
ATOM	5187	CA	LEU B 303	15.849	6.288	43.418	1.00	17.79	C
ATOM	5189	CB	LEU B 303	14.791	7.385	43.231	1.00	18.09	C
ATOM	5192	CG	LEU B 303	15.221	8.531	42.308	1.00	17.67	C
ATOM	5194	CD1	LEU B 303	14.092	9.512	42.250	1.00	19.09	C
ATOM	5198	CD2	LEU B 303	16.499	9.237	42.738	1.00	17.93	C
ATOM	5202	C	LEU B 303	15.481	5.397	44.603	1.00	17.88	C
ATOM	5203	O	LEU B 303	16.018	5.576	45.694	1.00	18.09	O
ATOM	5204	N	LEU B 304	14.599	4.435	44.384	1.00	18.34	N
ATOM	5206	CA	LEU B 304	14.225	3.462	45.424	1.00	19.12	C
ATOM	5208	CB	LEU B 304	13.000	2.648	45.029	1.00	19.11	C
ATOM	5211	CG	LEU B 304	11.682	3.361	45.284	1.00	22.25	C
ATOM	5213	CD1	LEU B 304	10.525	2.646	44.598	1.00	23.77	C
ATOM	5217	CD2	LEU B 304	11.401	3.446	46.774	1.00	24.94	C
ATOM	5221	C	LEU B 304	15.362	2.504	45.797	1.00	19.16	C
ATOM	5222	O	LEU B 304	15.543	2.207	46.962	1.00	18.26	O
ATOM	5223	N	LYS B 305	16.118	2.041	44.817	1.00	19.66	N
ATOM	5225	CA	LYS B 305	17.276	1.184	45.087	1.00	20.90	C
ATOM	5227	CB	LYS B 305	18.086	0.982	43.803	1.00	21.43	C
ATOM	5230	CG	LYS B 305	18.188	-0.474	43.290	1.00	25.43	C
ATOM	5233	CD	LYS B 305	19.671	-0.824	43.050	1.00	29.56	C
ATOM	5236	CE	LYS B 305	19.872	-2.081	42.196	1.00	33.34	C
ATOM	5239	NZ	LYS B 305	20.738	-3.092	42.899	1.00	35.01	N
ATOM	5243	C	LYS B 305	18.194	1.820	46.132	1.00	21.19	C
ATOM	5244	O	LYS B 305	18.538	1.202	47.129	1.00	20.18	O
ATOM	5245	N	ALA B 306	18.575	3.079	45.885	1.00	21.68	N
ATOM	5247	CA	ALA B 306	19.510	3.801	46.737	1.00	21.68	C
ATOM	5249	CB	ALA B 306	20.118	5.014	45.965	1.00	21.77	C
ATOM	5253	C	ALA B 306	18.909	4.265	48.054	1.00	21.59	C
ATOM	5254	O	ALA B 306	19.554	4.149	49.054	1.00	22.32	O
ATOM	5255	N	SER B 307	17.673	4.763	48.059	1.00	21.99	N
ATOM	5257	CA	SER B 307	17.102	5.400	49.238	1.00	22.32	C
ATOM	5259	CB	SER B 307	16.153	6.529	48.826	1.00	22.68	C
ATOM	5262	OG	SER B 307	14.966	6.025	48.261	1.00	27.06	O
ATOM	5264	C	SER B 307	16.392	4.463	50.237	1.00	21.68	C
ATOM	5265	O	SER B 307	16.207	4.829	51.383	1.00	21.09	O

86

ATOM	5266	N	THR B 308	16.068	3.242	49.820	1.00	21.12	N
ATOM	5268	CA	THR B 308	15.358	2.303	50.663	1.00	20.17	C
ATOM	5270	CB	THR B 308	15.120	1.004	49.866	1.00	20.22	C
ATOM	5272	OG1	THR B 308	14.067	1.229	48.910	1.00	21.08	O
ATOM	5274	CG2	THR B 308	14.597	-0.110	50.733	1.00	20.01	C
ATOM	5278	C	THR B 308	16.055	2.063	52.013	1.00	19.87	C
ATOM	5279	O	THR B 308	15.457	2.269	53.050	1.00	19.84	O
ATOM	5280	N	ILE B 309	17.322	1.681	51.998	1.00	20.00	N
ATOM	5282	CA	ILE B 309	18.078	1.457	53.226	1.00	20.44	C
ATOM	5284	CB	ILE B 309	19.514	0.916	52.937	1.00	20.43	C
ATOM	5286	CG1	ILE B 309	20.193	0.428	54.226	1.00	21.85	C
ATOM	5289	CD1	ILE B 309	19.587	-0.887	54.827	1.00	23.34	C
ATOM	5293	CG2	ILE B 309	20.393	1.956	52.279	1.00	19.30	C
ATOM	5297	C	ILE B 309	18.118	2.715	54.081	1.00	20.93	C
ATOM	5298	O	ILE B 309	18.043	2.638	55.300	1.00	21.58	O
ATOM	5299	N	GLU B 310	18.183	3.877	53.450	1.00	21.10	N
ATOM	5301	CA	GLU B 310	18.233	5.136	54.194	1.00	20.55	C
ATOM	5303	CB	GLU B 310	18.665	6.279	53.278	1.00	21.11	C
ATOM	5306	CG	GLU B 310	20.079	6.040	52.736	1.00	21.63	C
ATOM	5309	CD	GLU B 310	20.596	7.171	51.871	1.00	21.01	C
ATOM	5310	OE1	GLU B 310	20.027	8.242	51.917	1.00	22.94	O
ATOM	5311	OE2	GLU B 310	21.586	6.987	51.151	1.00	24.16	O
ATOM	5312	C	GLU B 310	16.912	5.428	54.846	1.00	19.84	C
ATOM	5313	O	GLU B 310	16.861	5.928	55.933	1.00	18.83	O
ATOM	5314	N	ILE B 311	15.828	5.084	54.181	1.00	20.26	N
ATOM	5316	CA	ILE B 311	14.501	5.301	54.734	1.00	19.99	C
ATOM	5318	CB	ILE B 311	13.466	5.158	53.614	1.00	20.39	C
ATOM	5320	CG1	ILE B 311	13.622	6.325	52.637	1.00	20.26	C
ATOM	5323	CD1	ILE B 311	12.700	6.234	51.452	1.00	20.97	C
ATOM	5327	CG2	ILE B 311	12.013	5.097	54.200	1.00	20.99	C
ATOM	5331	C	ILE B 311	14.230	4.325	55.916	1.00	19.83	C
ATOM	5332	O	ILE B 311	13.590	4.684	56.920	1.00	18.39	O
ATOM	5333	N	MET B 312	14.774	3.111	55.796	1.00	19.60	N
ATOM	5335	CA	MET B 312	14.665	2.119	56.854	1.00	19.01	C
ATOM	5337	CB	MET B 312	15.236	0.768	56.399	1.00	19.11	C
ATOM	5340	CG	MET B 312	14.301	0.062	55.431	1.00	20.34	C
ATOM	5343	SD	MET B 312	15.032	-1.379	54.654	1.00	23.02	S
ATOM	5344	CE	MET B 312	15.212	-2.430	56.106	1.00	20.75	C
ATOM	5348	C	MET B 312	15.389	2.612	58.082	1.00	18.35	C
ATOM	5349	O	MET B 312	14.911	2.420	59.178	1.00	16.83	O
ATOM	5350	N	LEU B 313	16.551	3.235	57.888	1.00	18.33	N
ATOM	5352	CA	LEU B 313	17.357	3.744	58.995	1.00	18.26	C
ATOM	5354	CB	LEU B 313	18.725	4.206	58.489	1.00	18.25	C
ATOM	5357	CG	LEU B 313	19.673	3.040	58.189	1.00	18.56	C
ATOM	5359	CD1	LEU B 313	20.869	3.421	57.305	1.00	19.14	C
ATOM	5363	CD2	LEU B 313	20.170	2.424	59.473	1.00	18.97	C
ATOM	5367	C	LEU B 313	16.618	4.884	59.701	1.00	18.25	C
ATOM	5368	O	LEU B 313	16.587	4.957	60.918	1.00	18.53	O

ATOM	5369	N	LEU B 314	15.981	5.746	58.938	1.00	18.14	N
ATOM	5371	CA	LEU B 314	15.184	6.842	59.509	1.00	18.65	C
ATOM	5373	CB	LEU B 314	14.670	7.733	58.372	1.00	19.14	C
ATOM	5376	CG	LEU B 314	15.050	9.202	58.059	1.00	20.71	C
ATOM	5378	CD1	LEU B 314	16.217	9.794	58.783	1.00	21.19	C
ATOM	5382	CD2	LEU B 314	15.206	9.415	56.548	1.00	19.63	C
ATOM	5386	C	LEU B 314	13.974	6.296	60.298	1.00	18.07	C
ATOM	5387	O	LEU B 314	13.629	6.774	61.370	1.00	17.93	O
ATOM	5388	N	GLU B 315	13.309	5.300	59.741	1.00	18.08	N
ATOM	5390	CA	GLU B 315	12.166	4.692	60.394	1.00	17.56	C
ATOM	5392	CB	GLU B 315	11.424	3.831	59.375	1.00	18.44	C
ATOM	5395	CG	GLU B 315	10.579	4.641	58.385	1.00	19.99	C
ATOM	5398	CD	GLU B 315	9.477	5.446	59.101	1.00	22.89	C
ATOM	5399	OE1	GLU B 315	8.566	4.831	59.704	1.00	24.43	O
ATOM	5400	OE2	GLU B 315	9.532	6.691	59.087	1.00	25.41	O
ATOM	5401	C	GLU B 315	12.581	3.895	61.644	1.00	16.81	C
ATOM	5402	O	GLU B 315	11.826	3.775	62.569	1.00	16.86	O
ATOM	5403	N	THR B 316	13.801	3.383	61.663	1.00	16.33	N
ATOM	5405	CA	THR B 316	14.366	2.674	62.780	1.00	16.08	C
ATOM	5407	CB	THR B 316	15.614	1.913	62.285	1.00	15.87	C
ATOM	5409	OG1	THR B 316	15.208	0.804	61.491	1.00	14.80	O
ATOM	5411	CG2	THR B 316	16.367	1.251	63.426	1.00	17.13	C
ATOM	5415	C	THR B 316	14.749	3.640	63.902	1.00	17.34	C
ATOM	5416	O	THR B 316	14.463	3.401	65.074	1.00	17.55	O
ATOM	5417	N	ALA B 317	15.400	4.745	63.552	1.00	18.26	N
ATOM	5419	CA	ALA B 317	15.695	5.811	64.522	1.00	18.61	C
ATOM	5421	CB	ALA B 317	16.429	6.964	63.824	1.00	18.53	C
ATOM	5425	C	ALA B 317	14.421	6.332	65.204	1.00	18.68	C
ATOM	5426	O	ALA B 317	14.389	6.571	66.400	1.00	18.89	O
ATOM	5427	N	ARG B 318	13.377	6.502	64.426	1.00	18.61	N
ATOM	5429	CA	ARG B 318	12.083	6.983	64.928	1.00	19.48	C
ATOM	5431	CB	ARG B 318	11.155	7.112	63.709	1.00	19.79	C
ATOM	5434	CG	ARG B 318	9.762	7.573	63.931	1.00	21.32	C
ATOM	5437	CD	ARG B 318	8.974	7.561	62.652	1.00	22.32	C
ATOM	5440	NE	ARG B 318	7.814	8.424	62.760	1.00	22.06	N
ATOM	5442	CZ	ARG B 318	7.149	8.902	61.720	1.00	23.25	C
ATOM	5443	NH1	ARG B 318	7.514	8.605	60.475	1.00	23.85	N
ATOM	5446	NH2	ARG B 318	6.114	9.702	61.930	1.00	23.62	N
ATOM	5449	C	ARG B 318	11.431	6.027	65.951	1.00	19.52	C
ATOM	5450	O	ARG B 318	10.512	6.419	66.646	1.00	18.83	O
ATOM	5451	N	ARG B 319	11.884	4.769	65.972	1.00	19.51	N
ATOM	5453	CA	ARG B 319	11.359	3.735	66.838	1.00	19.63	C
ATOM	5455	CB	ARG B 319	11.023	2.513	65.990	1.00	20.14	C
ATOM	5458	CG	ARG B 319	9.761	2.674	65.155	1.00	20.16	C
ATOM	5461	CD	ARG B 319	9.662	1.671	64.069	1.00	22.23	C
ATOM	5464	NE	ARG B 319	8.375	1.782	63.392	1.00	23.64	N
ATOM	5466	CZ	ARG B 319	8.091	2.668	62.463	1.00	22.31	C
ATOM	5467	NH1	ARG B 319	8.996	3.540	62.053	1.00	21.00	N

88

ATOM	5470	NH2 ARG B 319	6.883	2.677	61.934	1.00	23.04	N
ATOM	5473	C ARG B 319	12.341	3.326	67.931	1.00	19.98	C
ATOM	5474	O ARG B 319	12.071	2.396	68.673	1.00	18.70	O
ATOM	5475	N TYR B 320	13.490	4.006	68.013	1.00	20.87	N
ATOM	5477	CA TYR B 320	14.429	3.830	69.124	1.00	21.31	C
ATOM	5479	CB TYR B 320	15.810	4.382	68.752	1.00	21.41	C
ATOM	5482	CG TYR B 320	16.807	4.495	69.897	1.00	21.78	C
ATOM	5483	CD1 TYR B 320	17.366	3.355	70.464	1.00	21.54	C
ATOM	5485	CE1 TYR B 320	18.290	3.432	71.508	1.00	21.17	C
ATOM	5487	CZ TYR B 320	18.689	4.668	71.998	1.00	21.48	C
ATOM	5488	OH TYR B 320	19.595	4.689	73.039	1.00	20.80	O
ATOM	5490	CE2 TYR B 320	18.163	5.837	71.448	1.00	21.45	C
ATOM	5492	CD2 TYR B 320	17.218	5.745	70.391	1.00	21.97	C
ATOM	5494	C TYR B 320	13.868	4.515	70.387	1.00	21.80	C
ATOM	5495	O TYR B 320	13.303	5.595	70.328	1.00	21.19	O
ATOM	5496	N ASN B 321	13.998	3.843	71.521	1.00	22.40	N
ATOM	5498	CA ASN B 321	13.573	4.373	72.802	1.00	22.77	C
ATOM	5500	CB ASN B 321	12.708	3.358	73.550	1.00	22.95	C
ATOM	5503	CG ASN B 321	12.145	3.903	74.842	1.00	22.61	C
ATOM	5504	OD1 ASN B 321	11.047	3.543	75.250	1.00	22.66	O
ATOM	5505	ND2 ASN B 321	12.895	4.762	75.498	1.00	23.35	N
ATOM	5508	C ASN B 321	14.835	4.609	73.562	1.00	23.23	C
ATOM	5509	O ASN B 321	15.522	3.651	73.936	1.00	22.65	O
ATOM	5510	N HIS B 322	15.151	5.884	73.795	1.00	24.18	N
ATOM	5512	CA HIS B 322	16.393	6.224	74.473	1.00	24.47	C
ATOM	5514	CB HIS B 322	16.671	7.716	74.398	1.00	24.86	C
ATOM	5517	CG HIS B 322	18.070	8.070	74.772	1.00	26.27	C
ATOM	5518	ND1 HIS B 322	19.137	7.229	74.524	1.00	28.18	N
ATOM	5520	CE1 HIS B 322	20.247	7.791	74.968	1.00	29.87	C
ATOM	5522	NE2 HIS B 322	19.940	8.968	75.492	1.00	29.50	N
ATOM	5524	CD2 HIS B 322	18.582	9.162	75.388	1.00	28.26	C
ATOM	5526	C HIS B 322	16.424	5.764	75.919	1.00	24.60	C
ATOM	5527	O HIS B 322	17.498	5.505	76.451	1.00	24.45	O
ATOM	5528	N GLU B 323	15.263	5.659	76.555	1.00	25.02	N
ATOM	5530	CA GLU B 323	15.203	5.201	77.954	1.00	26.23	C
ATOM	5532	CB GLU B 323	13.811	5.403	78.571	1.00	26.65	C
ATOM	5535	CG GLU B 323	13.212	6.790	78.408	1.00	28.87	C
ATOM	5538	CD GLU B 323	11.754	6.805	78.818	1.00	31.76	C
ATOM	5539	OE1 GLU B 323	10.910	6.371	77.989	1.00	33.58	O
ATOM	5540	OE2 GLU B 323	11.461	7.229	79.964	1.00	32.60	O
ATOM	5541	C GLU B 323	15.596	3.725	78.122	1.00	25.81	C
ATOM	5542	O GLU B 323	16.390	3.390	79.010	1.00	26.29	O
ATOM	5543	N THR B 324	15.012	2.852	77.298	1.00	24.93	N
ATOM	5545	CA THR B 324	15.311	1.418	77.351	1.00	24.29	C
ATOM	5547	CB THR B 324	14.126	0.596	76.828	1.00	24.13	C
ATOM	5549	OG1 THR B 324	13.771	1.042	75.512	1.00	25.21	O
ATOM	5551	CG2 THR B 324	12.851	0.815	77.667	1.00	23.59	C
ATOM	5555	C THR B 324	16.557	1.042	76.551	1.00	24.20	C

ATOM	5556	O	THR B 324	17.089	-0.046	76.731	1.00	23.81	O
ATOM	5557	N	GLU B 325	17.028	1.944	75.684	1.00	24.04	N
ATOM	5559	CA	GLU B 325	17.977	1.596	74.625	1.00	23.70	C
ATOM	5561	CB	GLU B 325	19.364	1.253	75.189	1.00	24.14	C
ATOM	5564	CG	GLU B 325	19.832	2.161	76.308	1.00	26.62	C
ATOM	5567	CD	GLU B 325	21.336	2.127	76.505	1.00	29.49	C
ATOM	5568	OE1	GLU B 325	21.818	1.245	77.250	1.00	32.94	O
ATOM	5569	OE2	GLU B 325	22.039	2.989	75.926	1.00	32.53	O
ATOM	5570	C	GLU B 325	17.472	0.421	73.791	1.00	22.50	C
ATOM	5571	O	GLU B 325	18.257	-0.448	73.445	1.00	22.33	O
ATOM	5572	N	CYS B 326	16.175	0.415	73.471	1.00	21.62	N
ATOM	5574	CA	CYS B 326	15.556	-0.628	72.625	1.00	21.10	C
ATOM	5576	CB	CYS B 326	14.577	-1.483	73.437	1.00	20.94	C
ATOM	5579	SG	CYS B 326	15.362	-2.639	74.570	1.00	19.56	S
ATOM	5580	C	CYS B 326	14.796	-0.052	71.432	1.00	20.61	C
ATOM	5581	O	CYS B 326	14.300	1.071	71.509	1.00	20.40	O
ATOM	5582	N	ILE B 327	14.697	-0.836	70.348	1.00	19.85	N
ATOM	5584	CA	ILE B 327	13.946	-0.442	69.150	1.00	19.33	C
ATOM	5586	CB	ILE B 327	14.789	-0.602	67.845	1.00	19.03	C
ATOM	5588	CG1	ILE B 327	16.075	0.213	67.923	1.00	19.00	C
ATOM	5591	CD1	ILE B 327	17.036	-0.001	66.787	1.00	19.79	C
ATOM	5595	CG2	ILE B 327	13.998	-0.115	66.652	1.00	19.82	C
ATOM	5599	C	ILE B 327	12.702	-1.301	69.059	1.00	19.16	C
ATOM	5600	O	ILE B 327	12.772	-2.506	69.306	1.00	19.67	O
ATOM	5601	N	THR B 328	11.581	-0.682	68.682	1.00	18.82	N
ATOM	5603	CA	THR B 328	10.294	-1.352	68.524	1.00	18.96	C
ATOM	5605	CB	THR B 328	9.249	-0.689	69.425	1.00	18.83	C
ATOM	5607	OG1	THR B 328	9.679	-0.792	70.786	1.00	18.81	O
ATOM	5609	CG2	THR B 328	7.904	-1.434	69.391	1.00	18.66	C
ATOM	5613	C	THR B 328	9.788	-1.324	67.058	1.00	19.53	C
ATOM	5614	O	THR B 328	9.301	-0.299	66.575	1.00	19.81	O
ATOM	5615	N	PHE B 329	9.864	-2.476	66.390	1.00	19.15	N
ATOM	5617	CA	PHE B 329	9.343	-2.642	65.054	1.00	19.04	C
ATOM	5619	CB	PHE B 329	10.245	-3.635	64.309	1.00	19.24	C
ATOM	5622	CG	PHE B 329	11.622	-3.116	64.046	1.00	17.86	C
ATOM	5623	CD1	PHE B 329	12.727	-3.768	64.539	1.00	17.81	C
ATOM	5625	CE1	PHE B 329	14.020	-3.267	64.293	1.00	19.08	C
ATOM	5627	CZ	PHE B 329	14.187	-2.105	63.530	1.00	18.44	C
ATOM	5629	CE2	PHE B 329	13.084	-1.435	63.061	1.00	18.69	C
ATOM	5631	CD2	PHE B 329	11.808	-1.933	63.326	1.00	19.29	C
ATOM	5633	C	PHE B 329	7.896	-3.128	65.037	1.00	19.53	C
ATOM	5634	O	PHE B 329	7.393	-3.654	66.012	1.00	19.84	O
ATOM	5635	N	LEU B 330	7.235	-2.944	63.899	1.00	20.05	N
ATOM	5637	CA	LEU B 330	5.863	-3.396	63.695	1.00	20.57	C
ATOM	5639	CB	LEU B 330	5.783	-4.927	63.618	1.00	20.30	C
ATOM	5642	CG	LEU B 330	6.728	-5.566	62.591	1.00	20.35	C
ATOM	5644	CD1	LEU B 330	6.402	-7.034	62.356	1.00	22.00	C
ATOM	5648	CD2	LEU B 330	6.785	-4.780	61.247	1.00	21.40	C

ATOM	5652	C	LEU B 330	4.976	-2.784	64.763	1.00	21.47	C
ATOM	5653	O	LEU B 330	4.895	-1.556	64.830	1.00	21.99	O
ATOM	5654	N	LYS B 331	4.326	-3.599	65.588	1.00	21.65	N
ATOM	5656	CA	LYS B 331	3.487	-3.085	66.647	1.00	22.41	C
ATOM	5658	CB	LYS B 331	2.128	-3.796	66.636	1.00	23.11	C
ATOM	5661	CG	LYS B 331	1.145	-3.253	67.690	1.00	24.32	C
ATOM	5664	CD	LYS B 331	-0.236	-3.877	67.543	1.00	27.35	C
ATOM	5667	CE	LYS B 331	-0.555	-4.869	68.655	1.00	27.05	C
ATOM	5670	NZ	LYS B 331	-2.010	-4.872	68.941	1.00	28.91	N
ATOM	5674	C	LYS B 331	4.126	-3.198	68.045	1.00	22.31	C
ATOM	5675	O	LYS B 331	4.046	-2.242	68.794	1.00	22.32	O
ATOM	5676	N	ASP B 332	4.759	-4.342	68.351	1.00	21.99	N
ATOM	5678	CA	ASP B 332	5.142	-4.776	69.707	1.00	22.70	C
ATOM	5680	CB	ASP B 332	4.166	-5.881	70.209	1.00	23.29	C
ATOM	5683	CG	ASP B 332	2.813	-5.372	70.469	1.00	26.06	C
ATOM	5684	OD1	ASP B 332	2.666	-4.139	70.484	1.00	31.51	O
ATOM	5685	OD2	ASP B 332	1.838	-6.112	70.700	1.00	31.02	O
ATOM	5686	C	ASP B 332	6.488	-5.470	69.789	1.00	21.82	C
ATOM	5687	O	ASP B 332	6.823	-6.033	70.836	1.00	22.97	O
ATOM	5688	N	PHE B 333	7.205	-5.541	68.692	1.00	20.93	N
ATOM	5690	CA	PHE B 333	8.393	-6.381	68.615	1.00	20.56	C
ATOM	5692	CB	PHE B 333	8.589	-6.931	67.175	1.00	20.26	C
ATOM	5695	CG	PHE B 333	7.773	-8.187	66.859	1.00	18.60	C
ATOM	5696	CD1	PHE B 333	7.974	-8.869	65.668	1.00	16.45	C
ATOM	5698	CE1	PHE B 333	7.235	-10.046	65.359	1.00	16.99	C
ATOM	5700	CZ	PHE B 333	6.284	-10.521	66.247	1.00	16.55	C
ATOM	5702	CE2	PHE B 333	6.074	-9.858	67.452	1.00	17.17	C
ATOM	5704	CD2	PHE B 333	6.818	-8.686	67.751	1.00	18.38	C
ATOM	5706	C	PHE B 333	9.528	-5.473	69.008	1.00	20.49	C
ATOM	5707	O	PHE B 333	9.864	-4.548	68.262	1.00	20.91	O
ATOM	5708	N	THR B 334	10.100	-5.703	70.180	1.00	20.24	N
ATOM	5710	CA	THR B 334	11.125	-4.806	70.703	1.00	20.44	C
ATOM	5712	CB	THR B 334	10.594	-3.926	71.894	1.00	20.17	C
ATOM	5714	OG1	THR B 334	11.636	-3.678	72.846	1.00	20.79	O
ATOM	5716	CG2	THR B 334	9.522	-4.614	72.673	1.00	21.30	C
ATOM	5720	C	THR B 334	12.439	-5.534	71.012	1.00	20.30	C
ATOM	5721	O	THR B 334	12.449	-6.640	71.561	1.00	19.10	O
ATOM	5722	N	TYR B 335	13.534	-4.867	70.631	1.00	20.31	N
ATOM	5724	CA	TYR B 335	14.844	-5.473	70.484	1.00	20.40	C
ATOM	5726	CB	TYR B 335	15.174	-5.647	68.990	1.00	20.45	C
ATOM	5729	CG	TYR B 335	14.148	-6.448	68.225	1.00	20.55	C
ATOM	5730	CD1	TYR B 335	13.154	-5.818	67.476	1.00	20.44	C
ATOM	5732	CE1	TYR B 335	12.198	-6.569	66.797	1.00	19.73	C
ATOM	5734	CZ	TYR B 335	12.257	-7.953	66.864	1.00	19.12	C
ATOM	5735	OH	TYR B 335	11.337	-8.725	66.209	1.00	17.64	O
ATOM	5737	CE2	TYR B 335	13.229	-8.579	67.601	1.00	19.14	C
ATOM	5739	CD2	TYR B 335	14.159	-7.836	68.272	1.00	19.10	C
ATOM	5741	C	TYR B 335	15.932	-4.612	71.129	1.00	20.52	C

ATOM	5742	O	TYR B 335	16.014	-3.412	70.893	1.00	20.05	O
ATOM	5743	N	SER B 336	16.782	-5.251	71.922	1.00	20.43	N
ATOM	5745	CA	SER B 336	17.952	-4.597	72.486	1.00	20.33	C
ATOM	5747	CB	SER B 336	18.305	-5.241	73.831	1.00	19.99	C
ATOM	5750	OG	SER B 336	18.585	-6.618	73.665	1.00	20.30	O
ATOM	5752	C	SER B 336	19.143	-4.690	71.528	1.00	20.27	C
ATOM	5753	O	SER B 336	19.108	-5.427	70.523	1.00	19.81	O
ATOM	5754	N	LYS B 337	20.185	-3.919	71.834	1.00	20.18	N
ATOM	5756	CA	LYS B 337	21.451	-4.021	71.121	1.00	20.61	C
ATOM	5758	CB	LYS B 337	22.568	-3.298	71.884	1.00	20.73	C
ATOM	5761	CG	LYS B 337	22.946	-1.926	71.372	1.00	20.74	C
ATOM	5764	CD	LYS B 337	24.458	-1.797	71.188	1.00	22.51	C
ATOM	5767	CE	LYS B 337	24.986	-0.449	71.664	1.00	24.73	C
ATOM	5770	NZ	LYS B 337	25.604	0.333	70.567	1.00	26.13	N
ATOM	5774	C	LYS B 337	21.835	-5.494	70.951	1.00	20.77	C
ATOM	5775	O	LYS B 337	22.051	-5.968	69.837	1.00	20.79	O
ATOM	5776	N	ASP B 338	21.905	-6.215	72.065	1.00	20.59	N
ATOM	5778	CA	ASP B 338	22.367	-7.594	72.041	1.00	20.75	C
ATOM	5780	CB	ASP B 338	22.527	-8.136	73.470	1.00	20.88	C
ATOM	5783	CG	ASP B 338	23.646	-7.453	74.224	1.00	21.14	C
ATOM	5784	OD1	ASP B 338	24.481	-6.772	73.571	1.00	23.64	O
ATOM	5785	OD2	ASP B 338	23.767	-7.516	75.454	1.00	19.13	O
ATOM	5786	C	ASP B 338	21.493	-8.527	71.193	1.00	20.83	C
ATOM	5787	O	ASP B 338	21.981	-9.566	70.726	1.00	20.93	O
ATOM	5788	N	ASP B 339	20.221	-8.180	70.990	1.00	20.59	N
ATOM	5790	CA	ASP B 339	19.355	-8.971	70.098	1.00	20.18	C
ATOM	5792	CB	ASP B 339	17.901	-8.484	70.139	1.00	20.18	C
ATOM	5795	CG	ASP B 339	17.172	-8.945	71.373	1.00	20.04	C
ATOM	5796	OD1	ASP B 339	17.694	-9.807	72.080	1.00	21.91	O
ATOM	5797	OD2	ASP B 339	16.061	-8.521	71.725	1.00	22.48	O
ATOM	5798	C	ASP B 339	19.864	-8.993	68.658	1.00	20.01	C
ATOM	5799	O	ASP B 339	19.809	-10.031	67.992	1.00	19.12	O
ATOM	5800	N	PHE B 340	20.347	-7.845	68.185	1.00	20.00	N
ATOM	5802	CA	PHE B 340	20.913	-7.732	66.842	1.00	20.04	C
ATOM	5804	CB	PHE B 340	21.054	-6.266	66.464	1.00	19.91	C
ATOM	5807	CG	PHE B 340	19.739	-5.540	66.446	1.00	18.63	C
ATOM	5808	CD1	PHE B 340	19.324	-4.812	67.547	1.00	15.10	C
ATOM	5810	CE1	PHE B 340	18.111	-4.167	67.544	1.00	15.79	C
ATOM	5812	CZ	PHE B 340	17.279	-4.273	66.438	1.00	16.79	C
ATOM	5814	CE2	PHE B 340	17.687	-5.004	65.329	1.00	16.17	C
ATOM	5816	CD2	PHE B 340	18.896	-5.640	65.341	1.00	17.09	C
ATOM	5818	C	PHE B 340	22.248	-8.474	66.748	1.00	20.74	C
ATOM	5819	O	PHE B 340	22.536	-9.163	65.759	1.00	20.52	O
ATOM	5820	N	HIS B 341	23.035	-8.357	67.814	1.00	20.93	N
ATOM	5822	CA	HIS B 341	24.290	-9.068	67.939	1.00	21.23	C
ATOM	5824	CB	HIS B 341	24.945	-8.689	69.274	1.00	21.87	C
ATOM	5827	CG	HIS B 341	26.425	-8.874	69.296	1.00	24.32	C
ATOM	5828	ND1	HIS B 341	27.258	-8.283	68.370	1.00	27.26	N

ATOM	5830	CE1 HIS B 341	28.511	-8.619	68.637	1.00	29.23	C
ATOM	5832	NE2 HIS B 341	28.520	-9.394	69.712	1.00	28.26	N
ATOM	5834	CD2 HIS B 341	27.227	-9.569	70.143	1.00	26.81	C
ATOM	5836	C HIS B 341	24.062	-10.587	67.867	1.00	20.61	C
ATOM	5837	O HIS B 341	24.885	-11.326	67.338	1.00	19.93	O
ATOM	5838	N ARG B 342	22.923	-11.031	68.383	1.00	20.24	N
ATOM	5840	CA ARG B 342	22.622	-12.446	68.492	1.00	20.26	C
ATOM	5842	CB ARG B 342	21.609	-12.680	69.603	1.00	20.30	C
ATOM	5845	CG ARG B 342	22.281	-12.799	70.960	1.00	21.07	C
ATOM	5848	CD ARG B 342	21.338	-13.108	72.105	1.00	22.73	C
ATOM	5851	NE ARG B 342	21.925	-12.713	73.387	1.00	24.61	N
ATOM	5853	CZ ARG B 342	21.680	-11.569	74.039	1.00	26.32	C
ATOM	5854	NH1 ARG B 342	20.828	-10.661	73.557	1.00	25.57	N
ATOM	5857	NH2 ARG B 342	22.292	-11.339	75.204	1.00	26.91	N
ATOM	5860	C ARG B 342	22.147	-13.060	67.175	1.00	20.12	C
ATOM	5861	O ARG B 342	22.203	-14.279	67.005	1.00	20.38	O
ATOM	5862	N ALA B 343	21.714	-12.209	66.253	1.00	20.25	N
ATOM	5864	CA ALA B 343	21.349	-12.602	64.899	1.00	20.52	C
ATOM	5866	CB ALA B 343	20.282	-11.648	64.333	1.00	20.71	C
ATOM	5870	C ALA B 343	22.542	-12.636	63.954	1.00	20.56	C
ATOM	5871	O ALA B 343	22.363	-12.934	62.781	1.00	20.80	O
ATOM	5872	N GLY B 344	23.736	-12.303	64.448	1.00	20.56	N
ATOM	5874	CA GLY B 344	24.962	-12.437	63.681	1.00	20.76	C
ATOM	5877	C GLY B 344	25.405	-11.172	62.972	1.00	21.42	C
ATOM	5878	O GLY B 344	26.286	-11.206	62.121	1.00	20.93	O
ATOM	5879	N LEU B 345	24.792	-10.046	63.313	1.00	22.33	N
ATOM	5881	CA LEU B 345	25.185	-8.778	62.709	1.00	23.03	C
ATOM	5883	CB LEU B 345	24.068	-7.734	62.844	1.00	23.04	C
ATOM	5886	CG LEU B 345	22.727	-8.159	62.246	1.00	22.68	C
ATOM	5888	CD1 LEU B 345	21.729	-7.055	62.440	1.00	23.50	C
ATOM	5892	CD2 LEU B 345	22.859	-8.503	60.764	1.00	22.37	C
ATOM	5896	C LEU B 345	26.477	-8.309	63.369	1.00	23.48	C
ATOM	5897	O LEU B 345	26.695	-8.537	64.568	1.00	23.52	O
ATOM	5898	N GLN B 346	27.351	-7.700	62.570	1.00	23.84	N
ATOM	5900	CA GLN B 346	28.660	-7.277	63.066	1.00	24.25	C
ATOM	5902	CB GLN B 346	29.712	-7.209	61.935	1.00	24.57	C
ATOM	5905	CG GLN B 346	29.375	-6.362	60.715	1.00	25.35	C
ATOM	5908	CD GLN B 346	30.330	-6.587	59.535	1.00	26.53	C
ATOM	5909	OE1 GLN B 346	30.205	-5.934	58.498	1.00	31.38	O
ATOM	5910	NE2 GLN B 346	31.263	-7.489	59.690	1.00	24.82	N
ATOM	5913	C GLN B 346	28.566	-5.958	63.843	1.00	24.06	C
ATOM	5914	O GLN B 346	27.653	-5.181	63.619	1.00	22.61	O
ATOM	5915	N VAL B 347	29.509	-5.752	64.774	1.00	24.61	N
ATOM	5917	CA VAL B 347	29.551	-4.553	65.631	1.00	24.76	C
ATOM	5919	CB VAL B 347	30.753	-4.562	66.633	1.00	24.64	C
ATOM	5921	CG1 VAL B 347	30.433	-3.707	67.857	1.00	24.46	C
ATOM	5925	CG2 VAL B 347	31.109	-5.959	67.066	1.00	25.76	C
ATOM	5929	C VAL B 347	29.670	-3.285	64.787	1.00	24.58	C

ATOM	5930	O	VAL B 347	29.117	-2.264	65.128	1.00	24.21	O
ATOM	5931	N	GLU B 348	30.403	-3.373	63.688	1.00	25.11	N
ATOM	5933	CA	GLU B 348	30.570	-2.253	62.769	1.00	26.25	C
ATOM	5935	CB	GLU B 348	31.514	-2.630	61.611	1.00	26.63	C
ATOM	5938	CG	GLU B 348	32.980	-2.792	62.024	1.00	28.25	C
ATOM	5941	CD	GLU B 348	33.376	-4.218	62.372	1.00	30.73	C
ATOM	5942	OE1	GLU B 348	32.478	-5.084	62.504	1.00	32.74	O
ATOM	5943	OE2	GLU B 348	34.595	-4.475	62.528	1.00	31.99	O
ATOM	5944	C	GLU B 348	29.241	-1.768	62.205	1.00	26.52	C
ATOM	5945	O	GLU B 348	29.132	-0.605	61.856	1.00	27.24	O
ATOM	5946	N	PHE B 349	28.261	-2.668	62.091	1.00	26.35	N
ATOM	5948	CA	PHE B 349	26.902	-2.359	61.625	1.00	26.53	C
ATOM	5950	CB	PHE B 349	26.283	-3.652	61.030	1.00	27.07	C
ATOM	5953	CG	PHE B 349	24.955	-3.474	60.284	1.00	27.97	C
ATOM	5954	CD1	PHE B 349	24.801	-2.526	59.295	1.00	29.03	C
ATOM	5956	CE1	PHE B 349	23.593	-2.410	58.587	1.00	29.29	C
ATOM	5958	CZ	PHE B 349	22.534	-3.269	58.866	1.00	29.80	C
ATOM	5960	CE2	PHE B 349	22.668	-4.231	59.842	1.00	28.08	C
ATOM	5962	CD2	PHE B 349	23.882	-4.345	60.537	1.00	29.40	C
ATOM	5964	C	PHE B 349	26.040	-1.845	62.782	1.00	26.01	C
ATOM	5965	O	PHE B 349	25.374	-0.808	62.667	1.00	27.32	O
ATOM	5966	N	ILE B 350	26.048	-2.565	63.895	1.00	25.04	N
ATOM	5968	CA	ILE B 350	25.114	-2.299	64.977	1.00	24.46	C
ATOM	5970	CB	ILE B 350	25.220	-3.375	66.089	1.00	24.65	C
ATOM	5972	CG1	ILE B 350	24.795	-4.753	65.561	1.00	25.40	C
ATOM	5975	CD1	ILE B 350	25.391	-5.915	66.342	1.00	24.28	C
ATOM	5979	CG2	ILE B 350	24.372	-2.977	67.316	1.00	23.35	C
ATOM	5983	C	ILE B 350	25.370	-0.937	65.588	1.00	23.74	C
ATOM	5984	O	ILE B 350	24.456	-0.138	65.735	1.00	24.06	O
ATOM	5985	N	ASN B 351	26.615	-0.690	65.959	1.00	23.14	N
ATOM	5987	CA	ASN B 351	26.951	0.465	66.797	1.00	23.18	C
ATOM	5989	CB	ASN B 351	28.417	0.385	67.280	1.00	23.11	C
ATOM	5992	CG	ASN B 351	28.580	-0.413	68.591	1.00	24.24	C
ATOM	5993	OD1	ASN B 351	27.634	-1.013	69.119	1.00	24.68	O
ATOM	5994	ND2	ASN B 351	29.792	-0.408	69.119	1.00	25.12	N
ATOM	5997	C	ASN B 351	26.621	1.827	66.144	1.00	22.25	C
ATOM	5998	O	ASN B 351	25.978	2.661	66.758	1.00	21.44	O
ATOM	5999	N	PRO B 352	27.011	2.040	64.898	1.00	22.06	N
ATOM	6000	CA	PRO B 352	26.659	3.279	64.196	1.00	21.97	C
ATOM	6002	CB	PRO B 352	27.300	3.087	62.825	1.00	22.02	C
ATOM	6005	CG	PRO B 352	28.358	2.100	63.028	1.00	21.94	C
ATOM	6008	CD	PRO B 352	27.840	1.161	64.060	1.00	22.45	C
ATOM	6011	C	PRO B 352	25.151	3.501	64.048	1.00	22.15	C
ATOM	6012	O	PRO B 352	24.700	4.640	64.067	1.00	22.27	O
ATOM	6013	N	ILE B 353	24.383	2.430	63.897	1.00	22.16	N
ATOM	6015	CA	ILE B 353	22.944	2.571	63.753	1.00	22.41	C
ATOM	6017	CB	ILE B 353	22.320	1.236	63.269	1.00	22.68	C
ATOM	6019	CG1	ILE B 353	22.760	0.968	61.826	1.00	23.88	C

ATOM	6022	CD1 ILE B 353	22.267	-0.333	61.234	1.00	24.70	C
ATOM	6026	CG2 ILE B 353	20.799	1.281	63.344	1.00	23.27	C
ATOM	6030	C ILE B 353	22.330	3.069	65.062	1.00	22.45	C
ATOM	6031	O ILE B 353	21.366	3.850	65.047	1.00	21.42	O
ATOM	6032	N PHE B 354	22.897	2.627	66.187	1.00	22.75	N
ATOM	6034	CA PHE B 354	22.419	3.060	67.503	1.00	23.03	C
ATOM	6036	CB PHE B 354	22.822	2.069	68.618	1.00	23.54	C
ATOM	6039	CG PHE B 354	21.777	0.993	68.874	1.00	23.55	C
ATOM	6040	CD1 PHE B 354	21.786	-0.189	68.142	1.00	22.65	C
ATOM	6042	CE1 PHE B 354	20.841	-1.166	68.358	1.00	22.86	C
ATOM	6044	CZ PHE B 354	19.861	-0.976	69.308	1.00	24.11	C
ATOM	6046	CE2 PHE B 354	19.837	0.206	70.052	1.00	24.26	C
ATOM	6048	CD2 PHE B 354	20.793	1.177	69.830	1.00	23.71	C
ATOM	6050	C PHE B 354	22.879	4.475	67.824	1.00	22.76	C
ATOM	6051	O PHE B 354	22.102	5.260	68.340	1.00	23.11	O
ATOM	6052	N GLU B 355	24.121	4.809	67.500	1.00	22.50	N
ATOM	6054	CA GLU B 355	24.564	6.197	67.547	1.00	22.65	C
ATOM	6056	CB GLU B 355	25.988	6.344	66.980	1.00	23.46	C
ATOM	6059	CG GLU B 355	27.097	6.173	68.008	1.00	25.71	C
ATOM	6062	CD GLU B 355	28.432	5.742	67.416	1.00	29.42	C
ATOM	6063	OE1 GLU B 355	29.424	5.673	68.197	1.00	32.31	O
ATOM	6064	OE2 GLU B 355	28.501	5.470	66.185	1.00	31.81	O
ATOM	6065	C GLU B 355	23.621	7.115	66.761	1.00	22.10	C
ATOM	6066	O GLU B 355	23.160	8.122	67.282	1.00	22.03	O
ATOM	6067	N PHE B 356	23.341	6.767	65.506	1.00	21.38	N
ATOM	6069	CA PHE B 356	22.485	7.588	64.668	1.00	21.28	C
ATOM	6071	CB PHE B 356	22.400	6.997	63.248	1.00	21.46	C
ATOM	6074	CG PHE B 356	21.411	7.703	62.349	1.00	19.88	C
ATOM	6075	CD1 PHE B 356	21.728	8.922	61.765	1.00	20.32	C
ATOM	6077	CE1 PHE B 356	20.799	9.572	60.929	1.00	19.72	C
ATOM	6079	CZ PHE B 356	19.551	8.977	60.686	1.00	19.12	C
ATOM	6081	CE2 PHE B 356	19.240	7.769	61.280	1.00	19.42	C
ATOM	6083	CD2 PHE B 356	20.165	7.140	62.093	1.00	18.90	C
ATOM	6085	C PHE B 356	21.083	7.753	65.278	1.00	21.70	C
ATOM	6086	O PHE B 356	20.522	8.848	65.286	1.00	21.32	O
ATOM	6087	N SER B 357	20.537	6.665	65.818	1.00	22.22	N
ATOM	6089	CA SER B 357	19.198	6.693	66.379	1.00	22.34	C
ATOM	6091	CB SER B 357	18.761	5.297	66.834	1.00	22.15	C
ATOM	6094	OG SER B 357	18.850	4.381	65.770	1.00	20.39	O
ATOM	6096	C SER B 357	19.121	7.674	67.545	1.00	23.09	C
ATOM	6097	O SER B 357	18.152	8.427	67.651	1.00	22.79	O
ATOM	6098	N ARG B 358	20.133	7.681	68.418	1.00	23.94	N
ATOM	6100	CA ARG B 358	20.055	8.569	69.578	1.00	25.01	C
ATOM	6102	CB ARG B 358	20.892	8.095	70.784	1.00	25.27	C
ATOM	6105	CG ARG B 358	22.385	8.167	70.684	1.00	27.29	C
ATOM	6108	CD ARG B 358	23.090	7.636	71.963	1.00	29.36	C
ATOM	6111	NE ARG B 358	23.411	6.218	71.837	1.00	31.12	N
ATOM	6113	CZ ARG B 358	24.583	5.717	71.431	1.00	32.37	C

ATOM	6114	NH1 ARG B 358	25.612	6.508	71.116	1.00	32.15	N
ATOM	6117	NH2 ARG B 358	24.727	4.395	71.336	1.00	32.81	N
ATOM	6120	C ARG B 358	20.314	10.010	69.171	1.00	24.86	C
ATOM	6121	O ARG B 358	19.812	10.920	69.815	1.00	24.77	O
ATOM	6122	N ALA B 359	21.028	10.213	68.064	1.00	25.00	N
ATOM	6124	CA ALA B 359	21.193	11.559	67.510	1.00	25.04	C
ATOM	6126	CB ALA B 359	22.292	11.581	66.462	1.00	25.27	C
ATOM	6130	C ALA B 359	19.866	12.069	66.946	1.00	25.27	C
ATOM	6131	O ALA B 359	19.472	13.211	67.213	1.00	24.83	O
ATOM	6132	N MET B 360	19.163	11.205	66.208	1.00	25.58	N
ATOM	6134	CA MET B 360	17.848	11.524	65.692	1.00	26.02	C
ATOM	6136	CB MET B 360	17.311	10.355	64.891	1.00	26.75	C
ATOM	6139	CG MET B 360	17.865	10.264	63.462	1.00	26.69	C
ATOM	6142	SD MET B 360	17.600	11.773	62.530	1.00	26.78	S
ATOM	6143	CE MET B 360	15.878	11.818	62.334	1.00	29.20	C
ATOM	6147	C MET B 360	16.870	11.875	66.805	1.00	27.02	C
ATOM	6148	O MET B 360	16.050	12.758	66.648	1.00	27.29	O
ATOM	6149	N ARG B 361	16.975	11.221	67.950	1.00	28.14	N
ATOM	6151	CA ARG B 361	16.062	11.498	69.052	1.00	29.35	C
ATOM	6153	CB ARG B 361	16.202	10.452	70.169	1.00	29.79	C
ATOM	6156	CG ARG B 361	14.909	10.252	70.977	1.00	32.56	C
ATOM	6159	CD ARG B 361	14.982	10.424	72.510	1.00	33.68	C
ATOM	6162	NE ARG B 361	15.990	11.386	72.937	1.00	36.77	N
ATOM	6164	CZ ARG B 361	16.081	11.895	74.152	1.00	39.67	C
ATOM	6165	NH1 ARG B 361	15.210	11.563	75.105	1.00	41.48	N
ATOM	6168	NH2 ARG B 361	17.049	12.766	74.417	1.00	42.15	N
ATOM	6171	C ARG B 361	16.246	12.903	69.621	1.00	29.48	C
ATOM	6172	O ARG B 361	15.260	13.539	69.984	1.00	29.69	O
ATOM	6173	N ARG B 362	17.489	13.394	69.692	1.00	29.21	N
ATOM	6175	CA ARG B 362	17.754	14.740	70.221	1.00	29.26	C
ATOM	6177	CB ARG B 362	19.255	15.033	70.233	1.00	29.68	C
ATOM	6180	CG ARG B 362	20.021	14.231	71.246	1.00	31.69	C
ATOM	6183	CD ARG B 362	21.494	14.550	71.257	1.00	34.31	C
ATOM	6186	NE ARG B 362	22.297	13.329	71.265	1.00	37.98	N
ATOM	6188	CZ ARG B 362	23.121	12.930	70.302	1.00	39.97	C
ATOM	6189	NH1 ARG B 362	23.289	13.642	69.186	1.00	41.73	N
ATOM	6192	NH2 ARG B 362	23.790	11.795	70.459	1.00	40.75	N
ATOM	6195	C ARG B 362	17.060	15.871	69.446	1.00	28.31	C
ATOM	6196	O ARG B 362	16.831	16.967	69.983	1.00	28.38	O
ATOM	6197	N LEU B 363	16.780	15.615	68.178	1.00	26.86	N
ATOM	6199	CA LEU B 363	16.062	16.560	67.347	1.00	26.19	C
ATOM	6201	CB LEU B 363	16.284	16.250	65.863	1.00	26.56	C
ATOM	6204	CG LEU B 363	17.691	16.558	65.383	1.00	25.98	C
ATOM	6206	CD1 LEU B 363	17.832	16.210	63.925	1.00	26.41	C
ATOM	6210	CD2 LEU B 363	17.982	18.007	65.616	1.00	28.05	C
ATOM	6214	C LEU B 363	14.583	16.548	67.632	1.00	25.35	C
ATOM	6215	O LEU B 363	13.912	17.494	67.326	1.00	25.36	O
ATOM	6216	N GLY B 364	14.061	15.456	68.163	1.00	24.96	N

ATOM	6218	CA	GLY B 364	12.648	15.379	68.501	1.00	24.26	C
ATOM	6221	C	GLY B 364	11.724	15.691	67.343	1.00	23.80	C
ATOM	6222	O	GLY B 364	10.814	16.502	67.481	1.00	24.22	O
ATOM	6223	N	LEU B 365	11.953	15.056	66.195	1.00	23.27	N
ATOM	6225	CA	LEU B 365	11.122	15.300	65.028	1.00	23.05	C
ATOM	6227	CB	LEU B 365	11.695	14.622	63.777	1.00	22.95	C
ATOM	6230	CG	LEU B 365	13.100	14.889	63.236	1.00	24.40	C
ATOM	6232	CD1	LEU B 365	13.116	14.608	61.771	1.00	26.37	C
ATOM	6236	CD2	LEU B 365	13.574	16.268	63.444	1.00	25.76	C
ATOM	6240	C	LEU B 365	9.713	14.754	65.254	1.00	22.55	C
ATOM	6241	O	LEU B 365	9.541	13.661	65.776	1.00	21.66	O
ATOM	6242	N	ASP B 366	8.716	15.503	64.821	1.00	22.33	N
ATOM	6244	CA	ASP B 366	7.357	14.999	64.806	1.00	22.52	C
ATOM	6246	CB	ASP B 366	6.358	16.137	65.116	1.00	22.86	C
ATOM	6249	CG	ASP B 366	6.347	17.260	64.089	1.00	23.02	C
ATOM	6250	OD1	ASP B 366	6.755	17.051	62.929	1.00	24.65	O
ATOM	6251	OD2	ASP B 366	5.909	18.405	64.382	1.00	23.11	O
ATOM	6252	C	ASP B 366	7.066	14.218	63.490	1.00	22.72	C
ATOM	6253	O	ASP B 366	8.012	13.887	62.722	1.00	23.30	O
ATOM	6254	N	ASP B 367	5.800	13.881	63.262	1.00	21.59	N
ATOM	6256	CA	ASP B 367	5.362	13.148	62.071	1.00	21.79	C
ATOM	6258	CB	ASP B 367	3.845	12.838	62.134	1.00	22.31	C
ATOM	6261	CG	ASP B 367	3.471	11.840	63.205	1.00	23.80	C
ATOM	6262	OD1	ASP B 367	4.366	11.222	63.788	1.00	25.82	O
ATOM	6263	OD2	ASP B 367	2.275	11.591	63.517	1.00	29.95	O
ATOM	6264	C	ASP B 367	5.570	13.895	60.760	1.00	21.22	C
ATOM	6265	O	ASP B 367	5.936	13.290	59.780	1.00	21.08	O
ATOM	6266	N	ALA B 368	5.231	15.178	60.725	1.00	21.32	N
ATOM	6268	CA	ALA B 368	5.378	16.003	59.521	1.00	21.50	C
ATOM	6270	CB	ALA B 368	4.779	17.356	59.731	1.00	21.08	C
ATOM	6274	C	ALA B 368	6.861	16.145	59.141	1.00	22.22	C
ATOM	6275	O	ALA B 368	7.217	16.110	57.970	1.00	22.94	O
ATOM	6276	N	GLU B 369	7.724	16.275	60.140	1.00	21.58	N
ATOM	6278	CA	GLU B 369	9.144	16.389	59.878	1.00	21.28	C
ATOM	6280	CB	GLU B 369	9.855	16.904	61.119	1.00	20.76	C
ATOM	6283	CG	GLU B 369	9.515	18.345	61.390	1.00	20.19	C
ATOM	6286	CD	GLU B 369	9.953	18.786	62.760	1.00	22.59	C
ATOM	6287	OE1	GLU B 369	10.285	19.973	62.899	1.00	22.51	O
ATOM	6288	OE2	GLU B 369	9.964	17.950	63.697	1.00	22.21	O
ATOM	6289	C	GLU B 369	9.804	15.099	59.373	1.00	21.09	C
ATOM	6290	O	GLU B 369	10.580	15.172	58.454	1.00	20.01	O
ATOM	6291	N	TYR B 370	9.520	13.943	59.994	1.00	21.24	N
ATOM	6293	CA	TYR B 370	9.988	12.643	59.473	1.00	21.31	C
ATOM	6295	CB	TYR B 370	9.540	11.471	60.364	1.00	20.77	C
ATOM	6298	CG	TYR B 370	10.539	11.079	61.446	1.00	19.87	C
ATOM	6299	CD1	TYR B 370	10.303	11.338	62.823	1.00	20.47	C
ATOM	6301	CE1	TYR B 370	11.250	10.951	63.809	1.00	18.80	C
ATOM	6303	CZ	TYR B 370	12.420	10.325	63.377	1.00	20.52	C

ATOM	6304	OH TYR B 370	13.403	9.900	64.210	1.00	25.00	O
ATOM	6306	CE2 TYR B 370	12.628	10.059	62.054	1.00	19.04	C
ATOM	6308	CD2 TYR B 370	11.695	10.431	61.107	1.00	17.94	C
ATOM	6310	C TYR B 370	9.504	12.422	58.020	1.00	22.05	C
ATOM	6311	O TYR B 370	10.280	12.030	57.132	1.00	22.17	O
ATOM	6312	N ALA B 371	8.244	12.730	57.751	1.00	22.06	N
ATOM	6314	CA ALA B 371	7.698	12.421	56.437	1.00	22.69	C
ATOM	6316	CB ALA B 371	6.182	12.587	56.404	1.00	22.87	C
ATOM	6320	C ALA B 371	8.359	13.261	55.371	1.00	22.57	C
ATOM	6321	O ALA B 371	8.706	12.767	54.311	1.00	23.55	O
ATOM	6322	N LEU B 372	8.548	14.539	55.652	1.00	22.74	N
ATOM	6324	CA LEU B 372	9.180	15.440	54.698	1.00	21.26	C
ATOM	6326	CB LEU B 372	9.105	16.859	55.216	1.00	21.25	C
ATOM	6329	CG LEU B 372	7.689	17.431	55.202	1.00	18.39	C
ATOM	6331	CD1 LEU B 372	7.624	18.763	55.992	1.00	18.33	C
ATOM	6335	CD2 LEU B 372	7.225	17.620	53.763	1.00	15.93	C
ATOM	6339	C LEU B 372	10.611	15.052	54.473	1.00	21.77	C
ATOM	6340	O LEU B 372	11.077	15.043	53.328	1.00	21.68	O
ATOM	6341	N LEU B 373	11.323	14.708	55.548	1.00	21.56	N
ATOM	6343	CA LEU B 373	12.721	14.252	55.409	1.00	21.75	C
ATOM	6345	CB LEU B 373	13.334	13.852	56.743	1.00	22.45	C
ATOM	6348	CG LEU B 373	14.494	14.616	57.324	1.00	25.72	C
ATOM	6350	CD1 LEU B 373	15.057	13.823	58.512	1.00	28.43	C
ATOM	6354	CD2 LEU B 373	15.570	14.831	56.300	1.00	29.29	C
ATOM	6358	C LEU B 373	12.825	13.055	54.497	1.00	20.74	C
ATOM	6359	O LEU B 373	13.737	12.942	53.702	1.00	19.81	O
ATOM	6360	N ILE B 374	11.886	12.137	54.642	1.00	21.08	N
ATOM	6362	CA ILE B 374	11.846	10.939	53.817	1.00	20.57	C
ATOM	6364	CB ILE B 374	10.747	10.013	54.335	1.00	20.39	C
ATOM	6366	CG1 ILE B 374	11.229	9.286	55.577	1.00	20.95	C
ATOM	6369	CD1 ILE B 374	10.125	8.645	56.372	1.00	22.08	C
ATOM	6373	CG2 ILE B 374	10.306	8.997	53.280	1.00	20.41	C
ATOM	6377	C ILE B 374	11.633	11.339	52.344	1.00	21.21	C
ATOM	6378	O ILE B 374	12.390	10.936	51.490	1.00	22.26	O
ATOM	6379	N ALA B 375	10.633	12.154	52.046	1.00	21.55	N
ATOM	6381	CA ALA B 375	10.410	12.616	50.662	1.00	21.80	C
ATOM	6383	CB ALA B 375	9.202	13.536	50.590	1.00	22.06	C
ATOM	6387	C ALA B 375	11.635	13.314	50.077	1.00	21.85	C
ATOM	6388	O ALA B 375	11.967	13.118	48.893	1.00	21.92	O
ATOM	6389	N ILE B 376	12.318	14.114	50.897	1.00	21.50	N
ATOM	6391	CA ILE B 376	13.541	14.782	50.457	1.00	21.19	C
ATOM	6393	CB ILE B 376	14.041	15.802	51.532	1.00	20.88	C
ATOM	6395	CG1 ILE B 376	13.075	16.989	51.633	1.00	21.76	C
ATOM	6398	CD1 ILE B 376	13.262	17.836	52.954	1.00	23.09	C
ATOM	6402	CG2 ILE B 376	15.469	16.325	51.249	1.00	18.77	C
ATOM	6406	C ILE B 376	14.607	13.720	50.128	1.00	21.39	C
ATOM	6407	O ILE B 376	15.337	13.852	49.181	1.00	21.54	O
ATOM	6408	N ASN B 377	14.676	12.672	50.929	1.00	21.99	N

ATOM	6410	CA	ASN B 377	15.626	11.580	50.735	1.00	21.62	C
ATOM	6412	CB	ASN B 377	15.584	10.615	51.929	1.00	21.16	C
ATOM	6415	CG	ASN B 377	16.707	9.585	51.892	1.00	22.85	C
ATOM	6416	OD1	ASN B 377	17.801	9.787	52.439	1.00	26.20	O
ATOM	6417	ND2	ASN B 377	16.451	8.492	51.231	1.00	23.87	N
ATOM	6420	C	ASN B 377	15.384	10.825	49.426	1.00	21.04	C
ATOM	6421	O	ASN B 377	16.333	10.529	48.695	1.00	21.12	O
ATOM	6422	N	ILE B 378	14.125	10.537	49.136	1.00	20.01	N
ATOM	6424	CA	ILE B 378	13.728	9.918	47.866	1.00	20.25	C
ATOM	6426	CB	ILE B 378	12.192	9.710	47.841	1.00	20.41	C
ATOM	6428	CG1	ILE B 378	11.834	8.657	48.899	1.00	21.58	C
ATOM	6431	CD1	ILE B 378	10.412	8.370	49.038	1.00	23.80	C
ATOM	6435	CG2	ILE B 378	11.714	9.248	46.466	1.00	20.06	C
ATOM	6439	C	ILE B 378	14.164	10.713	46.655	1.00	20.30	C
ATOM	6440	O	ILE B 378	14.673	10.146	45.685	1.00	20.64	O
ATOM	6441	N	PHE B 379	13.975	12.032	46.688	1.00	20.97	N
ATOM	6443	CA	PHE B 379	14.327	12.868	45.533	1.00	20.85	C
ATOM	6445	CB	PHE B 379	13.307	13.978	45.325	1.00	21.03	C
ATOM	6448	CG	PHE B 379	11.938	13.483	45.028	1.00	18.73	C
ATOM	6449	CD1	PHE B 379	10.895	13.715	45.904	1.00	19.42	C
ATOM	6451	CE1	PHE B 379	9.595	13.260	45.618	1.00	18.25	C
ATOM	6453	CZ	PHE B 379	9.358	12.588	44.424	1.00	19.28	C
ATOM	6455	CE2	PHE B 379	10.394	12.365	43.550	1.00	19.35	C
ATOM	6457	CD2	PHE B 379	11.675	12.824	43.848	1.00	20.53	C
ATOM	6459	C	PHE B 379	15.734	13.437	45.618	1.00	21.55	C
ATOM	6460	O	PHE B 379	15.928	14.630	45.451	1.00	21.95	O
ATOM	6461	N	SER B 380	16.716	12.566	45.849	1.00	22.01	N
ATOM	6463	CA	SER B 380	18.141	12.921	45.766	1.00	22.48	C
ATOM	6465	CB	SER B 380	18.977	12.086	46.752	1.00	22.20	C
ATOM	6468	OG	SER B 380	18.295	11.940	47.977	1.00	21.09	O
ATOM	6470	C	SER B 380	18.678	12.677	44.389	1.00	22.12	C
ATOM	6471	O	SER B 380	18.734	11.575	43.966	1.00	22.42	O
ATOM	6472	N	ALA B 381	19.158	13.709	43.728	1.00	24.24	N
ATOM	6474	CA	ALA B 381	19.547	13.663	42.304	1.00	24.67	C
ATOM	6476	CB	ALA B 381	19.458	15.063	41.711	1.00	24.77	C
ATOM	6480	C	ALA B 381	20.937	13.107	42.055	1.00	25.40	C
ATOM	6481	O	ALA B 381	21.322	12.885	40.900	1.00	26.89	O
ATOM	6482	N	ASP B 382	21.715	12.895	43.110	1.00	24.87	N
ATOM	6484	CA	ASP B 382	23.031	12.317	42.942	1.00	24.87	C
ATOM	6486	CB	ASP B 382	23.974	12.947	43.964	1.00	25.09	C
ATOM	6489	CG	ASP B 382	23.696	12.451	45.357	1.00	26.78	C
ATOM	6490	OD1	ASP B 382	22.509	12.291	45.704	1.00	28.37	O
ATOM	6491	OD2	ASP B 382	24.589	12.135	46.160	1.00	28.69	O
ATOM	6492	C	ASP B 382	23.066	10.776	43.074	1.00	24.13	C
ATOM	6493	O	ASP B 382	24.125	10.200	43.316	1.00	24.36	O
ATOM	6494	N	ARG B 383	21.928	10.095	42.957	1.00	23.11	N
ATOM	6496	CA	ARG B 383	21.933	8.634	43.049	1.00	21.78	C
ATOM	6498	CB	ARG B 383	20.518	8.111	43.232	1.00	21.83	C

ATOM	6501	CG	ARG B 383	19.814	8.623	44.440	1.00	20.99	C
ATOM	6504	CD	ARG B 383	20.545	8.433	45.741	1.00	20.33	C
ATOM	6507	NE	ARG B 383	19.596	8.511	46.864	1.00	21.84	N
ATOM	6509	CZ	ARG B 383	19.918	8.333	48.131	1.00	21.53	C
ATOM	6510	NH1	ARG B 383	21.145	8.007	48.472	1.00	20.87	N
ATOM	6513	NH2	ARG B 383	18.980	8.408	49.059	1.00	23.87	N
ATOM	6516	C	ARG B 383	22.505	8.056	41.760	1.00	21.41	C
ATOM	6517	O	ARG B 383	22.374	8.667	40.709	1.00	21.61	O
ATOM	6518	N	PRO B 384	23.090	6.869	41.801	1.00	20.87	N
ATOM	6519	CA	PRO B 384	23.582	6.251	40.559	1.00	20.64	C
ATOM	6521	CB	PRO B 384	24.368	5.002	41.035	1.00	20.73	C
ATOM	6524	CG	PRO B 384	24.050	4.814	42.506	1.00	20.95	C
ATOM	6527	CD	PRO B 384	23.284	6.012	42.984	1.00	20.98	C
ATOM	6530	C	PRO B 384	22.442	5.862	39.582	1.00	19.58	C
ATOM	6531	O	PRO B 384	21.321	5.562	39.988	1.00	19.38	O
ATOM	6532	N	ASN B 385	22.773	5.923	38.300	1.00	19.15	N
ATOM	6534	CA	ASN B 385	21.928	5.546	37.187	1.00	18.87	C
ATOM	6536	CB	ASN B 385	21.539	4.064	37.266	1.00	19.17	C
ATOM	6539	CG	ASN B 385	22.741	3.138	37.378	1.00	19.97	C
ATOM	6540	OD1	ASN B 385	22.846	2.358	38.322	1.00	23.24	O
ATOM	6541	ND2	ASN B 385	23.634	3.212	36.422	1.00	19.17	N
ATOM	6544	C	ASN B 385	20.677	6.412	37.009	1.00	18.90	C
ATOM	6545	O	ASN B 385	19.758	6.015	36.312	1.00	19.01	O
ATOM	6546	N	VAL B 386	20.630	7.595	37.609	1.00	18.05	N
ATOM	6548	CA	VAL B 386	19.492	8.466	37.390	1.00	18.00	C
ATOM	6550	CB	VAL B 386	19.341	9.452	38.535	1.00	17.77	C
ATOM	6552	CG1	VAL B 386	18.322	10.502	38.195	1.00	18.53	C
ATOM	6556	CG2	VAL B 386	18.920	8.706	39.830	1.00	18.13	C
ATOM	6560	C	VAL B 386	19.667	9.161	36.023	1.00	18.53	C
ATOM	6561	O	VAL B 386	20.736	9.692	35.730	1.00	18.62	O
ATOM	6562	N	GLN B 387	18.632	9.112	35.179	1.00	18.75	N
ATOM	6564	CA	GLN B 387	18.670	9.694	33.829	1.00	18.96	C
ATOM	6566	CB	GLN B 387	17.850	8.854	32.889	1.00	19.60	C
ATOM	6569	CG	GLN B 387	18.514	7.502	32.605	1.00	23.43	C
ATOM	6572	CD	GLN B 387	17.662	6.666	31.704	1.00	27.31	C
ATOM	6573	OE1	GLN B 387	17.705	6.860	30.486	1.00	33.18	O
ATOM	6574	NE2	GLN B 387	16.866	5.751	32.272	1.00	26.97	N
ATOM	6577	C	GLN B 387	18.188	11.128	33.743	1.00	18.62	C
ATOM	6578	O	GLN B 387	18.598	11.841	32.854	1.00	17.67	O
ATOM	6579	N	GLU B 388	17.328	11.555	34.672	1.00	18.51	N
ATOM	6581	CA	GLU B 388	16.893	12.948	34.726	1.00	18.71	C
ATOM	6583	CB	GLU B 388	15.406	13.064	34.376	1.00	19.03	C
ATOM	6586	CG	GLU B 388	15.119	12.747	32.925	1.00	20.30	C
ATOM	6589	CD	GLU B 388	13.677	12.993	32.593	1.00	21.79	C
ATOM	6590	OE1	GLU B 388	12.907	12.005	32.582	1.00	24.61	O
ATOM	6591	OE2	GLU B 388	13.324	14.167	32.345	1.00	20.18	O
ATOM	6592	C	GLU B 388	17.173	13.573	36.091	1.00	18.20	C
ATOM	6593	O	GLU B 388	16.247	13.948	36.787	1.00	17.43	O

100

ATOM	6594	N	PRO B 389	18.453	13.702	36.462	1.00	18.44	N
ATOM	6595	CA	PRO B 389	18.815	14.248	37.773	1.00	18.55	C
ATOM	6597	CB	PRO B 389	20.346	14.213	37.776	1.00	19.60	C
ATOM	6600	CG	PRO B 389	20.783	13.940	36.330	1.00	17.71	C
ATOM	6603	CD	PRO B 389	19.641	13.313	35.664	1.00	17.77	C
ATOM	6606	C	PRO B 389	18.303	15.665	38.029	1.00	19.06	C
ATOM	6607	O	PRO B 389	17.938	15.957	39.172	1.00	20.06	O
ATOM	6608	N	GLY B 390	18.252	16.525	37.018	1.00	18.94	N
ATOM	6610	CA	GLY B 390	17.707	17.878	37.178	1.00	18.72	C
ATOM	6613	C	GLY B 390	16.244	17.849	37.526	1.00	18.89	C
ATOM	6614	O	GLY B 390	15.744	18.568	38.368	1.00	19.36	O
ATOM	6615	N	ARG B 391	15.545	16.955	36.876	1.00	19.62	N
ATOM	6617	CA	ARG B 391	14.146	16.715	37.160	1.00	20.15	C
ATOM	6619	CB	ARG B 391	13.645	15.740	36.124	1.00	20.61	C
ATOM	6622	CG	ARG B 391	12.195	15.593	36.115	1.00	24.70	C
ATOM	6625	CD	ARG B 391	11.492	16.493	35.187	1.00	29.28	C
ATOM	6628	NE	ARG B 391	10.232	15.812	34.933	1.00	34.22	N
ATOM	6630	CZ	ARG B 391	9.037	16.308	35.165	1.00	37.37	C
ATOM	6631	NH1	ARG B 391	8.862	17.557	35.639	1.00	37.23	N
ATOM	6634	NH2	ARG B 391	7.999	15.534	34.887	1.00	39.85	N
ATOM	6637	C	ARG B 391	13.904	16.196	38.573	1.00	19.58	C
ATOM	6638	O	ARG B 391	12.973	16.602	39.248	1.00	20.55	O
ATOM	6639	N	VAL B 392	14.766	15.327	39.057	1.00	19.61	N
ATOM	6641	CA	VAL B 392	14.648	14.844	40.428	1.00	19.35	C
ATOM	6643	CB	VAL B 392	15.645	13.683	40.694	1.00	19.17	C
ATOM	6645	CG1	VAL B 392	15.677	13.306	42.168	1.00	17.59	C
ATOM	6649	CG2	VAL B 392	15.276	12.483	39.856	1.00	19.32	C
ATOM	6653	C	VAL B 392	14.889	15.984	41.415	1.00	19.99	C
ATOM	6654	O	VAL B 392	14.266	16.037	42.462	1.00	19.77	O
ATOM	6655	N	GLU B 393	15.814	16.880	41.102	1.00	21.29	N
ATOM	6657	CA	GLU B 393	16.120	17.986	41.998	1.00	22.72	C
ATOM	6659	CB	GLU B 393	17.387	18.707	41.562	1.00	23.91	C
ATOM	6662	CG	GLU B 393	17.816	19.798	42.531	1.00	27.69	C
ATOM	6665	CD	GLU B 393	19.290	20.112	42.440	1.00	33.96	C
ATOM	6666	OE1	GLU B 393	19.993	19.930	43.467	1.00	40.25	O
ATOM	6667	OE2	GLU B 393	19.751	20.546	41.346	1.00	37.57	O
ATOM	6668	C	GLU B 393	14.975	18.957	42.032	1.00	22.64	C
ATOM	6669	O	GLU B 393	14.656	19.485	43.076	1.00	24.10	O
ATOM	6670	N	ALA B 394	14.320	19.166	40.900	1.00	22.81	N
ATOM	6672	CA	ALA B 394	13.176	20.066	40.863	1.00	22.69	C
ATOM	6674	CB	ALA B 394	12.795	20.396	39.450	1.00	22.06	C
ATOM	6678	C	ALA B 394	11.981	19.467	41.617	1.00	23.03	C
ATOM	6679	O	ALA B 394	11.202	20.231	42.181	1.00	23.92	O
ATOM	6680	N	LEU B 395	11.816	18.131	41.634	1.00	22.54	N
ATOM	6682	CA	LEU B 395	10.742	17.525	42.445	1.00	21.91	C
ATOM	6684	CB	LEU B 395	10.406	16.116	41.975	1.00	22.77	C
ATOM	6687	CG	LEU B 395	9.971	15.956	40.516	1.00	24.05	C
ATOM	6689	CD1	LEU B 395	9.943	14.498	40.103	1.00	27.97	C

ATOM	6693	CD2 LEU B 395	8.618	16.573	40.261	1.00	25.94	C
ATOM	6697	C LEU B 395	11.065	17.528	43.939	1.00	21.66	C
ATOM	6698	O LEU B 395	10.176	17.494	44.774	1.00	22.24	O
ATOM	6699	N GLN B 396	12.342	17.606	44.282	1.00	21.70	N
ATOM	6701	CA GLN B 396	12.774	17.642	45.662	1.00	21.46	C
ATOM	6703	CB GLN B 396	14.290	17.407	45.748	1.00	21.16	C
ATOM	6706	CG GLN B 396	14.762	17.278	47.157	1.00	19.91	C
ATOM	6709	CD GLN B 396	16.242	17.271	47.304	1.00	18.53	C
ATOM	6710	OE1 GLN B 396	16.814	16.357	47.872	1.00	21.58	O
ATOM	6711	NE2 GLN B 396	16.853	18.307	46.880	1.00	19.04	N
ATOM	6714	C GLN B 396	12.512	18.999	46.310	1.00	22.42	C
ATOM	6715	O GLN B 396	12.311	19.083	47.531	1.00	22.74	O
ATOM	6716	N GLN B 397	12.609	20.059	45.515	1.00	21.79	N
ATOM	6718	CA GLN B 397	12.642	21.406	46.061	1.00	22.10	C
ATOM	6720	CB GLN B 397	12.921	22.426	44.932	1.00	21.93	C
ATOM	6723	CG GLN B 397	12.340	23.784	45.175	1.00	25.00	C
ATOM	6726	CD GLN B 397	12.712	24.823	44.098	1.00	27.36	C
ATOM	6727	OE1 GLN B 397	13.741	24.712	43.446	1.00	29.73	O
ATOM	6728	NE2 GLN B 397	11.843	25.817	43.907	1.00	28.44	N
ATOM	6731	C GLN B 397	11.399	21.804	46.892	1.00	21.10	C
ATOM	6732	O GLN B 397	11.548	22.460	47.924	1.00	20.27	O
ATOM	6733	N PRO B 398	10.197	21.491	46.413	1.00	20.27	N
ATOM	6734	CA PRO B 398	8.978	21.775	47.170	1.00	20.48	C
ATOM	6736	CB PRO B 398	7.853	21.157	46.285	1.00	20.46	C
ATOM	6739	CG PRO B 398	8.399	21.083	44.907	1.00	20.28	C
ATOM	6742	CD PRO B 398	9.897	20.933	45.078	1.00	20.66	C
ATOM	6745	C PRO B 398	8.955	21.149	48.595	1.00	20.52	C
ATOM	6746	O PRO B 398	8.406	21.758	49.513	1.00	19.86	O
ATOM	6747	N TYR B 399	9.513	19.947	48.736	1.00	19.95	N
ATOM	6749	CA TYR B 399	9.694	19.267	50.017	1.00	19.66	C
ATOM	6751	CB TYR B 399	10.095	17.794	49.771	1.00	19.96	C
ATOM	6754	CG TYR B 399	8.992	17.060	49.082	1.00	20.60	C
ATOM	6755	CD1 TYR B 399	9.067	16.731	47.722	1.00	21.38	C
ATOM	6757	CE1 TYR B 399	7.972	16.080	47.079	1.00	20.43	C
ATOM	6759	CZ TYR B 399	6.844	15.797	47.808	1.00	18.83	C
ATOM	6760	OH TYR B 399	5.769	15.177	47.250	1.00	21.91	O
ATOM	6762	CE2 TYR B 399	6.764	16.139	49.136	1.00	18.87	C
ATOM	6764	CD2 TYR B 399	7.815	16.777	49.758	1.00	18.80	C
ATOM	6766	C TYR B 399	10.702	19.951	50.936	1.00	19.16	C
ATOM	6767	O TYR B 399	10.465	20.049	52.148	1.00	18.16	O
ATOM	6768	N VAL B 400	11.812	20.431	50.376	1.00	18.94	N
ATOM	6770	CA VAL B 400	12.788	21.216	51.140	1.00	18.36	C
ATOM	6772	CB VAL B 400	14.078	21.510	50.338	1.00	18.34	C
ATOM	6774	CG1 VAL B 400	15.057	22.361	51.158	1.00	17.60	C
ATOM	6778	CG2 VAL B 400	14.805	20.218	49.978	1.00	18.78	C
ATOM	6782	C VAL B 400	12.126	22.509	51.633	1.00	19.10	C
ATOM	6783	O VAL B 400	12.266	22.901	52.793	1.00	18.63	O
ATOM	6784	N GLU B 401	11.363	23.137	50.752	1.00	19.95	N

ATOM 6786	CA	GLU B 401	10.660	24.396	51.040	1.00	20.81	C
ATOM 6788	CB	GLU B 401	9.980	24.887	49.769	1.00	21.64	C
ATOM 6791	CG	GLU B 401	9.504	26.324	49.799	1.00	27.75	C
ATOM 6794	CD	GLU B 401	10.501	27.293	49.155	1.00	36.68	C
ATOM 6795	OE1	GLU B 401	10.588	28.481	49.617	1.00	38.68	O
ATOM 6796	OE2	GLU B 401	11.197	26.868	48.179	1.00	41.81	O
ATOM 6797	C	GLU B 401	9.629	24.230	52.155	1.00	19.84	C
ATOM 6798	O	GLU B 401	9.589	25.014	53.106	1.00	18.68	O
ATOM 6799	N	ALA B 402	8.838	23.157	52.064	1.00	19.81	N
ATOM 6801	CA	ALA B 402	7.834	22.859	53.078	1.00	19.56	C
ATOM 6803	CB	ALA B 402	6.939	21.709	52.631	1.00	19.65	C
ATOM 6807	C	ALA B 402	8.477	22.517	54.406	1.00	19.45	C
ATOM 6808	O	ALA B 402	7.937	22.861	55.450	1.00	19.63	O
ATOM 6809	N	LEU B 403	9.602	21.803	54.382	1.00	18.88	N
ATOM 6811	CA	LEU B 403	10.291	21.515	55.623	1.00	18.91	C
ATOM 6813	CB	LEU B 403	11.403	20.485	55.442	1.00	18.51	C
ATOM 6816	CG	LEU B 403	12.064	19.983	56.718	1.00	17.83	C
ATOM 6818	CD1	LEU B 403	11.007	19.509	57.721	1.00	17.29	C
ATOM 6822	CD2	LEU B 403	13.053	18.855	56.391	1.00	17.18	C
ATOM 6826	C	LEU B 403	10.864	22.799	56.222	1.00	19.30	C
ATOM 6827	O	LEU B 403	10.836	22.962	57.445	1.00	19.32	O
ATOM 6828	N	LEU B 404	11.349	23.710	55.385	1.00	18.83	N
ATOM 6830	CA	LEU B 404	11.908	24.971	55.893	1.00	19.83	C
ATOM 6832	CB	LEU B 404	12.582	25.758	54.769	1.00	19.82	C
ATOM 6835	CG	LEU B 404	13.162	27.133	55.082	1.00	21.43	C
ATOM 6837	CD1	LEU B 404	14.160	27.114	56.223	1.00	21.67	C
ATOM 6841	CD2	LEU B 404	13.827	27.664	53.830	1.00	23.49	C
ATOM 6845	C	LEU B 404	10.814	25.826	56.544	1.00	20.14	C
ATOM 6846	O	LEU B 404	10.966	26.280	57.675	1.00	19.85	O
ATOM 6847	N	SER B 405	9.711	26.025	55.824	1.00	20.46	N
ATOM 6849	CA	SER B 405	8.570	26.776	56.344	1.00	21.10	C
ATOM 6851	CB	SER B 405	7.494	26.874	55.286	1.00	20.99	C
ATOM 6854	OG	SER B 405	7.940	27.728	54.257	1.00	22.98	O
ATOM 6856	C	SER B 405	7.968	26.162	57.598	1.00	21.36	C
ATOM 6857	O	SER B 405	7.627	26.881	58.513	1.00	20.94	O
ATOM 6858	N	TYR B 406	7.848	24.832	57.629	1.00	21.51	N
ATOM 6860	CA	TYR B 406	7.295	24.124	58.776	1.00	21.53	C
ATOM 6862	CB	TYR B 406	7.098	22.638	58.440	1.00	22.05	C
ATOM 6865	CG	TYR B 406	6.431	21.844	59.542	1.00	23.67	C
ATOM 6866	CD1	TYR B 406	5.043	21.693	59.585	1.00	24.99	C
ATOM 6868	CE1	TYR B 406	4.432	20.986	60.609	1.00	25.66	C
ATOM 6870	CZ	TYR B 406	5.221	20.429	61.607	1.00	26.80	C
ATOM 6871	OH	TYR B 406	4.665	19.720	62.646	1.00	26.38	O
ATOM 6873	CE2	TYR B 406	6.597	20.568	61.566	1.00	26.07	C
ATOM 6875	CD2	TYR B 406	7.187	21.268	60.546	1.00	24.46	C
ATOM 6877	C	TYR B 406	8.160	24.280	60.035	1.00	21.46	C
ATOM 6878	O	TYR B 406	7.628	24.611	61.082	1.00	20.76	O
ATOM 6879	N	THR B 407	9.479	24.056	59.935	1.00	22.12	N

103

ATOM	6881	CA	THR B 407	10.380	24.170	61.104	1.00	22.52	C
ATOM	6883	CB	THR B 407	11.845	23.693	60.845	1.00	22.07	C
ATOM	6885	OG1	THR B 407	12.375	24.291	59.659	1.00	21.27	O
ATOM	6887	CG2	THR B 407	11.918	22.218	60.585	1.00	21.87	C
ATOM	6891	C	THR B 407	10.423	25.587	61.628	1.00	23.40	C
ATOM	6892	O	THR B 407	10.545	25.776	62.818	1.00	23.34	O
ATOM	6893	N	ARG B 408	10.318	26.566	60.730	1.00	24.83	N
ATOM	6895	CA	ARG B 408	10.251	27.989	61.095	1.00	26.16	C
ATOM	6897	CB	ARG B 408	10.133	28.857	59.849	1.00	26.47	C
ATOM	6900	CG	ARG B 408	11.422	29.169	59.213	1.00	29.07	C
ATOM	6903	CD	ARG B 408	11.316	30.145	58.080	1.00	33.02	C
ATOM	6906	NE	ARG B 408	12.639	30.395	57.520	1.00	36.59	N
ATOM	6908	CZ	ARG B 408	12.875	30.989	56.355	1.00	39.86	C
ATOM	6909	NH1	ARG B 408	11.870	31.415	55.590	1.00	40.48	N
ATOM	6912	NH2	ARG B 408	14.138	31.162	55.955	1.00	41.20	N
ATOM	6915	C	ARG B 408	9.046	28.312	61.947	1.00	26.90	C
ATOM	6916	O	ARG B 408	9.115	29.145	62.856	1.00	26.25	O
ATOM	6917	N	ILE B 409	7.925	27.687	61.596	1.00	27.89	N
ATOM	6919	CA	ILE B 409	6.657	27.927	62.273	1.00	28.59	C
ATOM	6921	CB	ILE B 409	5.500	27.609	61.305	1.00	28.57	C
ATOM	6923	CG1	ILE B 409	5.513	28.615	60.148	1.00	27.22	C
ATOM	6926	CD1	ILE B 409	4.730	28.171	58.934	1.00	27.40	C
ATOM	6930	CG2	ILE B 409	4.154	27.569	62.041	1.00	28.50	C
ATOM	6934	C	ILE B 409	6.551	27.138	63.583	1.00	29.57	C
ATOM	6935	O	ILE B 409	5.997	27.639	64.549	1.00	30.01	O
ATOM	6936	N	LYS B 410	7.121	25.939	63.631	1.00	30.86	N
ATOM	6938	CA	LYS B 410	6.988	25.066	64.797	1.00	32.21	C
ATOM	6940	CB	LYS B 410	7.166	23.588	64.418	1.00	32.45	C
ATOM	6943	CG	LYS B 410	8.221	22.814	65.260	1.00	33.99	C
ATOM	6946	CD	LYS B 410	8.114	21.286	65.125	1.00	34.20	C
ATOM	6949	CE	LYS B 410	8.522	20.586	66.421	1.00	35.09	C
ATOM	6952	NZ	LYS B 410	8.397	19.084	66.286	1.00	36.30	N
ATOM	6956	C	LYS B 410	7.941	25.437	65.930	1.00	33.27	C
ATOM	6957	O	LYS B 410	7.521	25.534	67.095	1.00	33.79	O
ATOM	6958	N	ARG B 411	9.222	25.606	65.609	1.00	34.33	N
ATOM	6960	CA	ARG B 411	10.206	26.083	66.585	1.00	35.18	C
ATOM	6962	CB	ARG B 411	11.248	25.004	66.924	1.00	35.80	C
ATOM	6965	CG	ARG B 411	10.683	23.741	67.611	1.00	38.53	C
ATOM	6968	CD	ARG B 411	10.853	23.665	69.160	1.00	42.62	C
ATOM	6971	NE	ARG B 411	11.101	22.280	69.612	1.00	46.02	N
ATOM	6973	CZ	ARG B 411	12.300	21.662	69.621	1.00	47.66	C
ATOM	6974	NH1	ARG B 411	13.408	22.293	69.223	1.00	48.31	N
ATOM	6977	NH2	ARG B 411	12.393	20.401	70.043	1.00	48.06	N
ATOM	6980	C	ARG B 411	10.872	27.325	66.019	1.00	34.97	C
ATOM	6981	O	ARG B 411	11.978	27.258	65.483	1.00	34.95	O
ATOM	6982	N	PRO B 412	10.201	28.469	66.141	1.00	35.00	N
ATOM	6983	CA	PRO B 412	10.704	29.715	65.549	1.00	34.89	C
ATOM	6985	CB	PRO B 412	9.532	30.689	65.734	1.00	34.62	C

ATOM	6988	CG	PRO B 412	8.753	30.151	66.866	1.00	34.16	C
ATOM	6991	CD	PRO B 412	8.924	28.675	66.855	1.00	34.87	C
ATOM	6994	C	PRO B 412	11.961	30.253	66.217	1.00	35.11	C
ATOM	6995	O	PRO B 412	12.562	31.173	65.662	1.00	35.08	O
ATOM	6996	N	GLN B 413	12.345	29.710	67.373	1.00	35.40	N
ATOM	6998	CA	GLN B 413	13.527	30.198	68.087	1.00	35.71	C
ATOM	7000	CB	GLN B 413	13.146	30.691	69.495	1.00	35.93	C
ATOM	7003	CG	GLN B 413	12.139	31.862	69.503	1.00	36.43	C
ATOM	7006	CD	GLN B 413	12.742	33.189	69.037	1.00	37.27	C
ATOM	7007	OE1	GLN B 413	12.480	33.649	67.918	1.00	37.13	O
ATOM	7008	NE2	GLN B 413	13.538	33.812	69.901	1.00	38.43	N
ATOM	7011	C	GLN B 413	14.677	29.183	68.151	1.00	35.33	C
ATOM	7012	O	GLN B 413	15.675	29.438	68.820	1.00	35.84	O
ATOM	7013	N	ASP B 414	14.544	28.049	67.461	1.00	34.73	N
ATOM	7015	CA	ASP B 414	15.691	27.174	67.172	1.00	34.14	C
ATOM	7017	CB	ASP B 414	15.466	25.727	67.632	1.00	34.43	C
ATOM	7020	CG	ASP B 414	16.752	24.886	67.574	1.00	35.47	C
ATOM	7021	OD1	ASP B 414	17.799	25.376	67.085	1.00	36.59	O
ATOM	7022	OD2	ASP B 414	16.822	23.727	68.025	1.00	37.73	O
ATOM	7023	C	ASP B 414	15.953	27.165	65.689	1.00	32.85	C
ATOM	7024	O	ASP B 414	15.444	26.313	64.973	1.00	33.10	O
ATOM	7025	N	GLN B 415	16.767	28.096	65.230	1.00	31.49	N
ATOM	7027	CA	GLN B 415	17.013	28.245	63.801	1.00	30.71	C
ATOM	7029	CB	GLN B 415	17.546	29.646	63.508	1.00	31.50	C
ATOM	7032	CG	GLN B 415	17.044	30.228	62.193	1.00	33.44	C
ATOM	7035	CD	GLN B 415	17.412	31.699	62.033	1.00	35.70	C
ATOM	7036	OE1	GLN B 415	16.661	32.462	61.413	1.00	37.83	O
ATOM	7037	NE2	GLN B 415	18.568	32.099	62.579	1.00	35.86	N
ATOM	7040	C	GLN B 415	17.974	27.209	63.234	1.00	28.90	C
ATOM	7041	O	GLN B 415	18.068	27.069	62.026	1.00	29.27	O
ATOM	7042	N	LEU B 416	18.673	26.474	64.084	1.00	27.28	N
ATOM	7044	CA	LEU B 416	19.594	25.440	63.609	1.00	26.89	C
ATOM	7046	CB	LEU B 416	20.804	25.382	64.523	1.00	27.08	C
ATOM	7049	CG	LEU B 416	21.479	26.755	64.628	1.00	26.37	C
ATOM	7051	CD1	LEU B 416	22.711	26.643	65.452	1.00	26.65	C
ATOM	7055	CD2	LEU B 416	21.777	27.334	63.233	1.00	25.68	C
ATOM	7059	C	LEU B 416	18.987	24.057	63.457	1.00	26.56	C
ATOM	7060	O	LEU B 416	19.645	23.137	63.022	1.00	27.07	O
ATOM	7061	N	ARG B 417	17.714	23.921	63.787	1.00	25.89	N
ATOM	7063	CA	ARG B 417	16.989	22.667	63.651	1.00	25.07	C
ATOM	7065	CB	ARG B 417	15.575	22.910	64.168	1.00	25.96	C
ATOM	7068	CG	ARG B 417	14.766	21.716	64.424	1.00	26.28	C
ATOM	7071	CD	ARG B 417	13.277	22.075	64.739	1.00	29.42	C
ATOM	7074	NE	ARG B 417	12.437	20.881	64.733	1.00	26.91	N
ATOM	7076	CZ	ARG B 417	12.598	19.893	65.587	1.00	28.65	C
ATOM	7077	NH1	ARG B 417	13.490	19.983	66.568	1.00	28.98	N
ATOM	7080	NH2	ARG B 417	11.841	18.821	65.488	1.00	30.77	N
ATOM	7083	C	ARG B 417	16.901	22.186	62.222	1.00	23.66	C

105

ATOM	7084	O	ARG B 417	17.168	21.022	61.917	1.00	23.62	O
ATOM	7085	N	PHE B 418	16.485	23.075	61.338	1.00	22.27	N
ATOM	7087	CA	PHE B 418	16.391	22.744	59.925	1.00	21.50	C
ATOM	7089	CB	PHE B 418	15.839	23.936	59.155	1.00	21.21	C
ATOM	7092	CG	PHE B 418	15.686	23.696	57.702	1.00	20.80	C
ATOM	7093	CD1	PHE B 418	14.794	22.782	57.238	1.00	21.20	C
ATOM	7095	CE1	PHE B 418	14.651	22.553	55.888	1.00	22.26	C
ATOM	7097	CZ	PHE B 418	15.364	23.256	54.991	1.00	21.03	C
ATOM	7099	CE2	PHE B 418	16.253	24.168	55.426	1.00	25.19	C
ATOM	7101	CD2	PHE B 418	16.416	24.399	56.792	1.00	24.41	C
ATOM	7103	C	PHE B 418	17.735	22.214	59.338	1.00	21.50	C
ATOM	7104	O	PHE B 418	17.777	21.092	58.865	1.00	20.74	O
ATOM	7105	N	PRO B 419	18.829	22.985	59.385	1.00	22.15	N
ATOM	7106	CA	PRO B 419	20.128	22.466	58.932	1.00	22.23	C
ATOM	7108	CB	PRO B 419	21.079	23.640	59.163	1.00	22.29	C
ATOM	7111	CG	PRO B 419	20.393	24.554	60.075	1.00	22.23	C
ATOM	7114	CD	PRO B 419	18.937	24.383	59.853	1.00	21.84	C
ATOM	7117	C	PRO B 419	20.627	21.220	59.697	1.00	22.91	C
ATOM	7118	O	PRO B 419	21.330	20.411	59.094	1.00	23.03	O
ATOM	7119	N	ARG B 420	20.300	21.073	60.977	1.00	22.72	N
ATOM	7121	CA	ARG B 420	20.613	19.845	61.697	1.00	23.79	C
ATOM	7123	CB	ARG B 420	20.217	19.957	63.165	1.00	24.37	C
ATOM	7126	CG	ARG B 420	21.273	20.495	64.065	1.00	26.49	C
ATOM	7129	CD	ARG B 420	20.780	20.749	65.509	1.00	29.34	C
ATOM	7132	NE	ARG B 420	21.635	21.741	66.163	1.00	31.75	N
ATOM	7134	CZ	ARG B 420	21.210	22.758	66.920	1.00	34.22	C
ATOM	7135	NH1	ARG B 420	19.905	22.942	67.170	1.00	35.33	N
ATOM	7138	NH2	ARG B 420	22.105	23.606	67.434	1.00	33.74	N
ATOM	7141	C	ARG B 420	19.881	18.623	61.109	1.00	23.97	C
ATOM	7142	O	ARG B 420	20.459	17.540	61.041	1.00	23.43	O
ATOM	7143	N	MET B 421	18.622	18.791	60.702	1.00	24.27	N
ATOM	7145	CA	MET B 421	17.877	17.700	60.048	1.00	25.13	C
ATOM	7147	CB	MET B 421	16.444	18.107	59.705	1.00	25.14	C
ATOM	7150	CG	MET B 421	15.556	18.134	60.884	1.00	26.83	C
ATOM	7153	SD	MET B 421	14.022	18.916	60.489	1.00	27.49	S
ATOM	7154	CE	MET B 421	13.280	17.711	59.650	1.00	28.40	C
ATOM	7158	C	MET B 421	18.513	17.288	58.750	1.00	25.25	C
ATOM	7159	O	MET B 421	18.675	16.104	58.484	1.00	25.17	O
ATOM	7160	N	LEU B 422	18.826	18.266	57.909	1.00	25.68	N
ATOM	7162	CA	LEU B 422	19.499	17.966	56.641	1.00	25.80	C
ATOM	7164	CB	LEU B 422	19.649	19.214	55.778	1.00	26.08	C
ATOM	7167	CG	LEU B 422	18.371	19.948	55.399	1.00	27.05	C
ATOM	7169	CD1	LEU B 422	18.758	21.190	54.647	1.00	27.88	C
ATOM	7173	CD2	LEU B 422	17.481	19.094	54.564	1.00	28.81	C
ATOM	7177	C	LEU B 422	20.889	17.373	56.870	1.00	24.95	C
ATOM	7178	O	LEU B 422	21.352	16.604	56.048	1.00	25.35	O
ATOM	7179	N	MET B 423	21.554	17.700	57.972	1.00	23.97	N
ATOM	7181	CA	MET B 423	22.857	17.078	58.231	1.00	24.01	C

ATOM	7183	CB	MET B 423	23.519	17.564	59.514	1.00	24.15	C
ATOM	7186	CG	MET B 423	24.207	18.886	59.485	1.00	28.02	C
ATOM	7189	SD	MET B 423	25.144	19.334	58.028	1.00	33.28	S
ATOM	7190	CE	MET B 423	25.917	20.670	58.720	1.00	30.65	C
ATOM	7194	C	MET B 423	22.688	15.578	58.382	1.00	22.60	C
ATOM	7195	O	MET B 423	23.639	14.832	58.146	1.00	21.75	O
ATOM	7196	N	LYS B 424	21.501	15.157	58.837	1.00	21.54	N
ATOM	7198	CA	LYS B 424	21.198	13.751	59.030	1.00	21.12	C
ATOM	7200	CB	LYS B 424	19.915	13.552	59.845	1.00	21.41	C
ATOM	7203	CG	LYS B 424	20.021	14.054	61.302	1.00	22.33	C
ATOM	7206	CD	LYS B 424	21.060	13.262	62.112	1.00	24.54	C
ATOM	7209	CE	LYS B 424	21.305	13.866	63.503	1.00	26.54	C
ATOM	7212	NZ	LYS B 424	22.298	14.993	63.495	1.00	27.45	N
ATOM	7216	C	LYS B 424	21.140	13.023	57.710	1.00	20.91	C
ATOM	7217	O	LYS B 424	21.461	11.842	57.650	1.00	21.03	O
ATOM	7218	N	LEU B 425	20.757	13.717	56.641	1.00	20.67	N
ATOM	7220	CA	LEU B 425	20.877	13.152	55.302	1.00	20.64	C
ATOM	7222	CB	LEU B 425	20.345	14.103	54.247	1.00	20.69	C
ATOM	7225	CG	LEU B 425	18.873	14.438	54.379	1.00	21.19	C
ATOM	7227	CD1	LEU B 425	18.494	15.237	53.200	1.00	21.86	C
ATOM	7231	CD2	LEU B 425	18.054	13.190	54.443	1.00	22.05	C
ATOM	7235	C	LEU B 425	22.320	12.775	54.954	1.00	19.93	C
ATOM	7236	O	LEU B 425	22.560	11.793	54.253	1.00	20.24	O
ATOM	7237	N	VAL B 426	23.252	13.576	55.444	1.00	18.93	N
ATOM	7239	CA	VAL B 426	24.673	13.325	55.277	1.00	18.53	C
ATOM	7241	CB	VAL B 426	25.562	14.481	55.830	1.00	18.13	C
ATOM	7243	CG1	VAL B 426	26.999	14.281	55.417	1.00	18.12	C
ATOM	7247	CG2	VAL B 426	25.088	15.835	55.310	1.00	18.79	C
ATOM	7251	C	VAL B 426	25.066	12.056	55.990	1.00	19.07	C
ATOM	7252	O	VAL B 426	25.722	11.216	55.391	1.00	19.50	O
ATOM	7253	N	SER B 427	24.707	11.934	57.275	1.00	18.98	N
ATOM	7255	CA	SER B 427	25.032	10.747	58.062	1.00	18.73	C
ATOM	7257	CB	SER B 427	24.455	10.833	59.463	1.00	18.64	C
ATOM	7260	OG	SER B 427	25.035	11.881	60.182	1.00	19.10	O
ATOM	7262	C	SER B 427	24.495	9.495	57.412	1.00	18.86	C
ATOM	7263	O	SER B 427	25.180	8.487	57.394	1.00	18.35	O
ATOM	7264	N	LEU B 428	23.283	9.573	56.843	1.00	19.64	N
ATOM	7266	CA	LEU B 428	22.650	8.419	56.207	1.00	19.88	C
ATOM	7268	CB	LEU B 428	21.240	8.758	55.753	1.00	20.39	C
ATOM	7271	CG	LEU B 428	20.127	8.747	56.783	1.00	22.09	C
ATOM	7273	CD1	LEU B 428	18.833	9.315	56.137	1.00	24.36	C
ATOM	7277	CD2	LEU B 428	19.876	7.349	57.324	1.00	22.79	C
ATOM	7281	C	LEU B 428	23.433	7.870	55.018	1.00	20.62	C
ATOM	7282	O	LEU B 428	23.358	6.662	54.739	1.00	21.52	O
ATOM	7283	N	ARG B 429	24.149	8.726	54.293	1.00	21.02	N
ATOM	7285	CA	ARG B 429	25.036	8.240	53.239	1.00	21.84	C
ATOM	7287	CB	ARG B 429	25.705	9.366	52.453	1.00	21.88	C
ATOM	7290	CG	ARG B 429	24.825	10.054	51.493	1.00	22.26	C

ATOM	7293	CD	ARG B 429	23.955	9.170	50.625	1.00	21.65	C
ATOM	7296	NE	ARG B 429	22.978	10.041	50.001	1.00	22.80	N
ATOM	7298	CZ	ARG B 429	23.105	10.605	48.806	1.00	22.52	C
ATOM	7299	NH1	ARG B 429	24.158	10.373	48.037	1.00	21.19	N
ATOM	7302	NH2	ARG B 429	22.125	11.385	48.368	1.00	24.13	N
ATOM	7305	C	ARG B 429	26.138	7.361	53.752	1.00	22.42	C
ATOM	7306	O	ARG B 429	26.450	6.343	53.134	1.00	23.64	O
ATOM	7307	N	THR B 430	26.775	7.773	54.838	1.00	22.80	N
ATOM	7309	CA	THR B 430	27.779	6.922	55.448	1.00	22.74	C
ATOM	7311	CB	THR B 430	28.429	7.629	56.631	1.00	22.93	C
ATOM	7313	OG1	THR B 430	29.214	8.722	56.144	1.00	24.58	O
ATOM	7315	CG2	THR B 430	29.448	6.722	57.336	1.00	22.39	C
ATOM	7319	C	THR B 430	27.162	5.592	55.887	1.00	22.46	C
ATOM	7320	O	THR B 430	27.729	4.542	55.636	1.00	22.37	O
ATOM	7321	N	LEU B 431	26.001	5.634	56.526	1.00	22.38	N
ATOM	7323	CA	LEU B 431	25.383	4.409	57.051	1.00	22.53	C
ATOM	7325	CB	LEU B 431	24.150	4.717	57.888	1.00	21.83	C
ATOM	7328	CG	LEU B 431	24.478	5.445	59.184	1.00	20.87	C
ATOM	7330	CD1	LEU B 431	23.188	5.951	59.823	1.00	20.96	C
ATOM	7334	CD2	LEU B 431	25.211	4.523	60.138	1.00	20.97	C
ATOM	7338	C	LEU B 431	25.030	3.458	55.918	1.00	22.90	C
ATOM	7339	O	LEU B 431	25.170	2.238	56.052	1.00	23.02	O
ATOM	7340	N	SER B 432	24.601	4.014	54.799	1.00	22.59	N
ATOM	7342	CA	SER B 432	24.342	3.202	53.637	1.00	23.31	C
ATOM	7344	CB	SER B 432	23.836	4.059	52.479	1.00	23.62	C
ATOM	7347	OG	SER B 432	24.046	3.351	51.281	1.00	25.54	O
ATOM	7349	C	SER B 432	25.596	2.445	53.206	1.00	23.40	C
ATOM	7350	O	SER B 432	25.529	1.299	52.808	1.00	23.35	O
ATOM	7351	N	SER B 433	26.745	3.092	53.283	1.00	24.11	N
ATOM	7353	CA	SER B 433	28.005	2.432	53.004	1.00	24.80	C
ATOM	7355	CB	SER B 433	29.157	3.419	53.086	1.00	25.19	C
ATOM	7358	OG	SER B 433	29.734	3.573	51.807	1.00	30.38	O
ATOM	7360	C	SER B 433	28.289	1.311	53.971	1.00	24.29	C
ATOM	7361	O	SER B 433	28.771	0.251	53.562	1.00	24.73	O
ATOM	7362	N	VAL B 434	28.030	1.565	55.252	1.00	24.19	N
ATOM	7364	CA	VAL B 434	28.243	0.579	56.319	1.00	24.22	C
ATOM	7366	CB	VAL B 434	27.876	1.124	57.734	1.00	24.01	C
ATOM	7368	CG1	VAL B 434	27.914	0.029	58.754	1.00	24.53	C
ATOM	7372	CG2	VAL B 434	28.826	2.247	58.154	1.00	24.55	C
ATOM	7376	C	VAL B 434	27.386	-0.643	56.006	1.00	24.42	C
ATOM	7377	O	VAL B 434	27.858	-1.780	56.135	1.00	23.89	O
ATOM	7378	N	HIS B 435	26.161	-0.393	55.529	1.00	24.53	N
ATOM	7380	CA	HIS B 435	25.210	-1.450	55.212	1.00	24.98	C
ATOM	7382	CB	HIS B 435	23.836	-0.877	54.873	1.00	25.01	C
ATOM	7385	CG	HIS B 435	22.912	-1.859	54.231	1.00	24.61	C
ATOM	7386	ND1	HIS B 435	22.618	-1.826	52.882	1.00	26.95	N
ATOM	7388	CE1	HIS B 435	21.787	-2.814	52.596	1.00	26.68	C
ATOM	7390	NE2	HIS B 435	21.526	-3.480	53.709	1.00	23.70	N

ATOM	7392	CD2	HIS	B 435	22.216	-2.900	54.745	1.00	24.26	C
ATOM	7394	C	HIS	B 435	25.714	-2.323	54.074	1.00	25.66	C
ATOM	7395	O	HIS	B 435	25.574	-3.530	54.163	1.00	25.03	O
ATOM	7396	N	SER	B 436	26.304	-1.710	53.035	1.00	26.47	N
ATOM	7398	CA	SER	B 436	26.938	-2.445	51.933	1.00	27.56	C
ATOM	7400	CB	SER	B 436	27.575	-1.499	50.901	1.00	27.74	C
ATOM	7403	OG	SER	B 436	26.626	-1.109	49.928	1.00	32.60	O
ATOM	7405	C	SER	B 436	28.025	-3.393	52.409	1.00	27.41	C
ATOM	7406	O	SER	B 436	28.130	-4.493	51.882	1.00	27.40	O
ATOM	7407	N	GLU	B 437	28.848	-2.949	53.364	1.00	27.71	N
ATOM	7409	CA	GLU	B 437	29.889	-3.803	53.969	1.00	28.28	C
ATOM	7411	CB	GLU	B 437	30.805	-2.974	54.858	1.00	28.54	C
ATOM	7414	CG	GLU	B 437	31.727	-2.061	54.072	1.00	32.01	C
ATOM	7417	CD	GLU	B 437	32.166	-0.823	54.844	1.00	35.77	C
ATOM	7418	OE1	GLU	B 437	32.705	0.098	54.190	1.00	39.57	O
ATOM	7419	OE2	GLU	B 437	31.993	-0.764	56.092	1.00	38.27	O
ATOM	7420	C	GLU	B 437	29.317	-4.962	54.804	1.00	27.86	C
ATOM	7421	O	GLU	B 437	29.912	-6.042	54.876	1.00	27.25	O
ATOM	7422	N	GLN	B 438	28.171	-4.726	55.439	1.00	27.48	N
ATOM	7424	CA	GLN	B 438	27.514	-5.770	56.196	1.00	27.48	C
ATOM	7426	CB	GLN	B 438	26.391	-5.220	57.085	1.00	27.08	C
ATOM	7429	CG	GLN	B 438	25.479	-6.296	57.699	1.00	26.95	C
ATOM	7432	CD	GLN	B 438	26.181	-7.186	58.720	1.00	27.28	C
ATOM	7433	OE1	GLN	B 438	26.237	-6.854	59.897	1.00	28.65	O
ATOM	7434	NE2	GLN	B 438	26.701	-8.314	58.274	1.00	26.37	N
ATOM	7437	C	GLN	B 438	27.010	-6.821	55.197	1.00	27.52	C
ATOM	7438	O	GLN	B 438	27.304	-8.001	55.372	1.00	26.72	O
ATOM	7439	N	VAL	B 439	26.320	-6.403	54.131	1.00	27.61	N
ATOM	7441	CA	VAL	B 439	25.830	-7.393	53.170	1.00	28.43	C
ATOM	7443	CB	VAL	B 439	24.717	-6.897	52.113	1.00	28.35	C
ATOM	7445	CG1	VAL	B 439	24.044	-5.589	52.495	1.00	27.55	C
ATOM	7449	CG2	VAL	B 439	25.229	-6.905	50.676	1.00	28.07	C
ATOM	7453	C	VAL	B 439	27.004	-8.103	52.487	1.00	28.78	C
ATOM	7454	O	VAL	B 439	26.901	-9.259	52.125	1.00	28.52	O
ATOM	7455	N	PHE	B 440	28.125	-7.410	52.360	1.00	29.47	N
ATOM	7457	CA	PHE	B 440	29.305	-7.982	51.740	1.00	30.18	C
ATOM	7459	CB	PHE	B 440	30.318	-6.877	51.390	1.00	30.52	C
ATOM	7462	CG	PHE	B 440	31.606	-7.398	50.836	1.00	31.17	C
ATOM	7463	CD1	PHE	B 440	31.791	-7.513	49.466	1.00	31.37	C
ATOM	7465	CE1	PHE	B 440	32.979	-8.019	48.956	1.00	31.90	C
ATOM	7467	CZ	PHE	B 440	33.998	-8.423	49.821	1.00	32.17	C
ATOM	7469	CE2	PHE	B 440	33.824	-8.319	51.191	1.00	32.21	C
ATOM	7471	CD2	PHE	B 440	32.632	-7.803	51.696	1.00	31.85	C
ATOM	7473	C	PHE	B 440	29.913	-9.048	52.662	1.00	30.53	C
ATOM	7474	O	PHE	B 440	30.343	-10.100	52.195	1.00	30.16	O
ATOM	7475	N	ALA	B 441	29.925	-8.772	53.968	1.00	31.12	N
ATOM	7477	CA	ALA	B 441	30.325	-9.745	54.974	1.00	31.30	C
ATOM	7479	CB	ALA	B 441	30.379	-9.105	56.343	1.00	31.11	C

ATOM	7483	C	ALA B 441	29.391	-10.955	54.995	1.00	32.14	C
ATOM	7484	O	ALA B 441	29.800	-12.049	55.385	1.00	32.55	O
ATOM	7485	N	LEU B 442	28.142	-10.771	54.589	1.00	33.22	N
ATOM	7487	CA	LEU B 442	27.205	-11.892	54.477	1.00	34.11	C
ATOM	7489	CB	LEU B 442	25.758	-11.389	54.314	1.00	33.91	C
ATOM	7492	CG	LEU B 442	25.202	-10.628	55.521	1.00	33.90	C
ATOM	7494	CD1	LEU B 442	23.829	-10.068	55.218	1.00	34.88	C
ATOM	7498	CD2	LEU B 442	25.123	-11.505	56.737	1.00	34.60	C
ATOM	7502	C	LEU B 442	27.593	-12.841	53.332	1.00	34.73	C
ATOM	7503	O	LEU B 442	27.529	-14.056	53.490	1.00	34.28	O
ATOM	7504	N	ARG B 443	28.002	-12.274	52.198	1.00	35.79	N
ATOM	7506	CA	ARG B 443	28.464	-13.057	51.053	1.00	36.82	C
ATOM	7508	CB	ARG B 443	28.733	-12.121	49.852	1.00	37.27	C
ATOM	7511	CG	ARG B 443	29.850	-12.552	48.893	1.00	39.03	C
ATOM	7514	CD	ARG B 443	29.495	-12.486	47.393	1.00	41.01	C
ATOM	7517	NE	ARG B 443	30.402	-13.339	46.604	1.00	43.02	N
ATOM	7519	CZ	ARG B 443	30.348	-13.500	45.277	1.00	43.98	C
ATOM	7520	NH1	ARG B 443	29.428	-12.865	44.544	1.00	44.15	N
ATOM	7523	NH2	ARG B 443	31.225	-14.303	44.677	1.00	44.00	N
ATOM	7526	C	ARG B 443	29.694	-13.903	51.446	1.00	37.30	C
ATOM	7527	O	ARG B 443	29.792	-15.085	51.073	1.00	37.31	O
ATOM	7528	N	LEU B 444	30.601	-13.314	52.229	1.00	37.79	N
ATOM	7530	CA	LEU B 444	31.804	-14.014	52.703	1.00	38.36	C
ATOM	7532	CB	LEU B 444	32.823	-13.031	53.309	1.00	38.50	C
ATOM	7535	CG	LEU B 444	33.483	-11.946	52.437	1.00	39.27	C
ATOM	7537	CD1	LEU B 444	34.650	-11.301	53.198	1.00	39.42	C
ATOM	7541	CD2	LEU B 444	33.967	-12.493	51.093	1.00	39.49	C
ATOM	7545	C	LEU B 444	31.501	-15.092	53.743	1.00	38.57	C
ATOM	7546	O	LEU B 444	32.320	-15.972	53.946	1.00	38.77	O
ATOM	7547	N	GLN B 445	30.351	-15.001	54.417	1.00	39.03	N
ATOM	7549	CA	GLN B 445	29.935	-15.990	55.421	1.00	39.48	C
ATOM	7551	CB	GLN B 445	29.267	-15.317	56.630	1.00	39.67	C
ATOM	7554	CG	GLN B 445	30.160	-14.414	57.476	1.00	40.48	C
ATOM	7557	CD	GLN B 445	29.374	-13.280	58.152	1.00	41.27	C
ATOM	7558	OE1	GLN B 445	28.303	-13.508	58.721	1.00	41.73	O
ATOM	7559	NE2	GLN B 445	29.904	-12.062	58.079	1.00	41.86	N
ATOM	7562	C	GLN B 445	28.958	-17.022	54.846	1.00	39.62	C
ATOM	7563	O	GLN B 445	28.558	-17.953	55.549	1.00	39.83	O
ATOM	7564	N	ASP B 446	28.570	-16.856	53.583	1.00	39.69	N
ATOM	7566	CA	ASP B 446	27.636	-17.775	52.926	1.00	39.90	C
ATOM	7568	CB	ASP B 446	28.171	-19.220	52.986	1.00	40.14	C
ATOM	7571	CG	ASP B 446	27.722	-20.064	51.805	1.00	40.55	C
ATOM	7572	OD1	ASP B 446	27.232	-19.486	50.812	1.00	40.10	O
ATOM	7573	OD2	ASP B 446	27.836	-21.315	51.786	1.00	41.94	O
ATOM	7574	C	ASP B 446	26.218	-17.699	53.518	1.00	39.64	C
ATOM	7575	O	ASP B 446	25.485	-18.697	53.549	1.00	39.62	O
ATOM	7576	N	LYS B 447	25.855	-16.507	53.985	1.00	39.29	N
ATOM	7578	CA	LYS B 447	24.502	-16.198	54.428	1.00	38.85	C

ATOM	7580	CB	LYS B 447	24.538	-15.369	55.721	1.00	38.99	C
ATOM	7583	CG	LYS B 447	25.541	-15.927	56.749	1.00	39.99	C
ATOM	7586	CD	LYS B 447	25.296	-15.482	58.201	1.00	40.92	C
ATOM	7589	CE	LYS B 447	26.096	-16.391	59.168	1.00	41.86	C
ATOM	7592	NZ	LYS B 447	26.346	-15.812	60.527	1.00	42.16	N
ATOM	7596	C	LYS B 447	23.842	-15.440	53.284	1.00	38.09	C
ATOM	7597	O	LYS B 447	24.282	-14.348	52.921	1.00	38.31	O
ATOM	7598	N	LYS B 448	22.822	-16.044	52.679	1.00	37.06	N
ATOM	7600	CA	LYS B 448	22.124	-15.429	51.555	1.00	36.00	C
ATOM	7602	CB	LYS B 448	21.698	-16.482	50.523	1.00	36.12	C
ATOM	7605	CG	LYS B 448	22.856	-17.241	49.867	1.00	36.81	C
ATOM	7608	CD	LYS B 448	23.688	-16.366	48.905	1.00	37.64	C
ATOM	7611	CE	LYS B 448	25.091	-16.967	48.656	1.00	38.58	C
ATOM	7614	NZ	LYS B 448	26.200	-16.218	49.345	1.00	38.48	N
ATOM	7618	C	LYS B 448	20.912	-14.660	52.071	1.00	34.89	C
ATOM	7619	O	LYS B 448	20.300	-15.040	53.082	1.00	34.58	O
ATOM	7620	N	LEU B 449	20.601	-13.560	51.386	1.00	33.41	N
ATOM	7622	CA	LEU B 449	19.396	-12.786	51.648	1.00	32.25	C
ATOM	7624	CB	LEU B 449	19.590	-11.327	51.260	1.00	31.84	C
ATOM	7627	CG	LEU B 449	20.615	-10.552	52.087	1.00	30.08	C
ATOM	7629	CD1	LEU B 449	20.834	-9.203	51.465	1.00	29.32	C
ATOM	7633	CD2	LEU B 449	20.156	-10.419	53.526	1.00	28.15	C
ATOM	7637	C	LEU B 449	18.224	-13.360	50.868	1.00	31.93	C
ATOM	7638	O	LEU B 449	18.415	-14.044	49.860	1.00	31.97	O
ATOM	7639	N	PRO B 450	17.010	-13.083	51.324	1.00	31.45	N
ATOM	7640	CA	PRO B 450	15.819	-13.504	50.585	1.00	31.01	C
ATOM	7642	CB	PRO B 450	14.675	-13.158	51.544	1.00	31.37	C
ATOM	7645	CG	PRO B 450	15.335	-12.895	52.857	1.00	31.77	C
ATOM	7648	CD	PRO B 450	16.661	-12.322	52.536	1.00	31.42	C
ATOM	7651	C	PRO B 450	15.687	-12.698	49.279	1.00	30.32	C
ATOM	7652	O	PRO B 450	16.112	-11.544	49.270	1.00	29.65	O
ATOM	7653	N	PRO B 451	15.109	-13.295	48.232	1.00	29.63	N
ATOM	7654	CA	PRO B 451	14.930	-12.658	46.920	1.00	29.20	C
ATOM	7656	CB	PRO B 451	13.801	-13.496	46.298	1.00	29.78	C
ATOM	7659	CG	PRO B 451	14.086	-14.923	46.803	1.00	29.58	C
ATOM	7662	CD	PRO B 451	14.618	-14.696	48.221	1.00	30.20	C
ATOM	7665	C	PRO B 451	14.589	-11.154	46.846	1.00	28.57	C
ATOM	7666	O	PRO B 451	15.275	-10.462	46.118	1.00	28.26	O
ATOM	7667	N	LEU B 452	13.589	-10.650	47.552	1.00	27.85	N
ATOM	7669	CA	LEU B 452	13.300	-9.222	47.473	1.00	27.84	C
ATOM	7671	CB	LEU B 452	12.015	-8.872	48.232	1.00	27.62	C
ATOM	7674	CG	LEU B 452	11.493	-7.431	48.108	1.00	28.13	C
ATOM	7676	CD1	LEU B 452	10.753	-7.168	46.780	1.00	28.76	C
ATOM	7680	CD2	LEU B 452	10.575	-7.090	49.262	1.00	28.05	C
ATOM	7684	C	LEU B 452	14.489	-8.373	47.979	1.00	27.83	C
ATOM	7685	O	LEU B 452	14.794	-7.336	47.399	1.00	27.31	O
ATOM	7686	N	LEU B 453	15.151	-8.816	49.054	1.00	27.69	N
ATOM	7688	CA	LEU B 453	16.289	-8.075	49.602	1.00	27.42	C

111

ATOM	7690	CB	LEU B 453	16.611	-8.523	51.042	1.00	27.10	C
ATOM	7693	CG	LEU B 453	15.447	-8.370	52.046	1.00	26.10	C
ATOM	7695	CD1	LEU B 453	15.928	-8.521	53.480	1.00	25.11	C
ATOM	7699	CD2	LEU B 453	14.705	-7.058	51.868	1.00	26.13	C
ATOM	7703	C	LEU B 453	17.512	-8.215	48.710	1.00	27.66	C
ATOM	7704	O	LEU B 453	18.213	-7.252	48.457	1.00	26.54	O
ATOM	7705	N	SER B 454	17.750	-9.423	48.230	1.00	28.50	N
ATOM	7707	CA	SER B 454	18.856	-9.680	47.317	1.00	29.60	C
ATOM	7709	CB	SER B 454	18.898	-11.151	46.927	1.00	29.24	C
ATOM	7712	OG	SER B 454	20.228	-11.551	46.868	1.00	28.29	O
ATOM	7714	C	SER B 454	18.756	-8.833	46.058	1.00	30.98	C
ATOM	7715	O	SER B 454	19.738	-8.280	45.598	1.00	30.30	O
ATOM	7716	N	GLU B 455	17.546	-8.740	45.531	1.00	33.26	N
ATOM	7718	CA	GLU B 455	17.220	-7.905	44.371	1.00	35.66	C
ATOM	7720	CB	GLU B 455	15.707	-8.032	44.086	1.00	36.15	C
ATOM	7723	CG	GLU B 455	15.263	-7.623	42.691	1.00	39.50	C
ATOM	7726	CD	GLU B 455	13.842	-7.056	42.656	1.00	43.95	C
ATOM	7727	OE1	GLU B 455	13.642	-6.051	41.923	1.00	46.30	O
ATOM	7728	OE2	GLU B 455	12.926	-7.600	43.346	1.00	45.31	O
ATOM	7729	C	GLU B 455	17.628	-6.399	44.504	1.00	36.35	C
ATOM	7730	O	GLU B 455	18.015	-5.782	43.514	1.00	36.57	O
ATOM	7731	N	ILE B 456	17.547	-5.820	45.705	1.00	37.41	N
ATOM	7733	CA	ILE B 456	17.870	-4.396	45.900	1.00	38.54	C
ATOM	7735	CB	ILE B 456	16.995	-3.754	46.989	1.00	39.45	C
ATOM	7737	CG1	ILE B 456	15.584	-4.278	46.966	1.00	41.19	C
ATOM	7740	CD1	ILE B 456	15.094	-4.432	48.349	1.00	43.54	C
ATOM	7744	CG2	ILE B 456	16.922	-2.233	46.842	1.00	40.69	C
ATOM	7748	C	ILE B 456	19.306	-4.145	46.321	1.00	38.55	C
ATOM	7749	O	ILE B 456	19.827	-3.078	46.049	1.00	39.13	O
ATOM	7750	N	TRP B 457	19.935	-5.098	46.997	1.00	38.56	N
ATOM	7752	CA	TRP B 457	21.187	-4.827	47.695	1.00	39.22	C
ATOM	7754	CB	TRP B 457	20.997	-5.016	49.196	1.00	38.75	C
ATOM	7757	CG	TRP B 457	20.060	-4.069	49.811	1.00	36.02	C
ATOM	7758	CD1	TRP B 457	19.845	-2.783	49.455	1.00	35.13	C
ATOM	7760	NE1	TRP B 457	18.894	-2.219	50.269	1.00	34.94	N
ATOM	7762	CE2	TRP B 457	18.508	-3.144	51.196	1.00	33.63	C
ATOM	7763	CD2	TRP B 457	19.225	-4.322	50.932	1.00	34.53	C
ATOM	7764	CE3	TRP B 457	18.996	-5.444	51.744	1.00	35.16	C
ATOM	7766	CZ3	TRP B 457	18.079	-5.348	52.766	1.00	35.33	C
ATOM	7768	CH2	TRP B 457	17.378	-4.158	52.992	1.00	35.72	C
ATOM	7770	CZ2	TRP B 457	17.584	-3.046	52.220	1.00	34.02	C
ATOM	7772	C	TRP B 457	22.403	-5.652	47.286	1.00	40.58	C
ATOM	7773	O	TRP B 457	23.519	-5.234	47.550	1.00	40.81	O
ATOM	7774	N	ASP B 458	22.205	-6.829	46.703	1.00	42.46	N
ATOM	7776	CA	ASP B 458	23.335	-7.641	46.243	1.00	43.79	C
ATOM	7778	CB	ASP B 458	23.021	-9.140	46.277	1.00	43.86	C
ATOM	7781	CG	ASP B 458	23.067	-9.696	47.687	1.00	43.70	C
ATOM	7782	OD1	ASP B 458	24.152	-10.079	48.149	1.00	43.49	O

112

ATOM	7783	OD2 ASP B 458	22.071	-9.748	48.421	1.00	43.98	O
ATOM	7784	C ASP B 458	23.770	-7.230	44.850	1.00	45.14	C
ATOM	7785	O ASP B 458	22.939	-6.973	43.968	1.00	44.86	O
ATOM	7786	N VAL B 459	25.087	-7.166	44.671	1.00	46.62	N
ATOM	7788	CA VAL B 459	25.677	-6.828	43.382	1.00	47.79	C
ATOM	7790	CB VAL B 459	27.184	-6.477	43.539	1.00	48.10	C
ATOM	7792	CG1 VAL B 459	27.761	-5.902	42.224	1.00	48.81	C
ATOM	7796	CG2 VAL B 459	27.396	-5.495	44.724	1.00	48.27	C
ATOM	7800	C VAL B 459	25.448	-8.016	42.420	1.00	48.37	C
ATOM	7801	O VAL B 459	24.879	-7.851	41.330	1.00	48.63	O
ATOM	7802	N ALA B 460	25.866	-9.208	42.851	1.00	48.86	N
ATOM	7804	CA ALA B 460	25.615	-10.453	42.120	1.00	49.35	C
ATOM	7806	CB ALA B 460	24.120	-10.826	42.193	1.00	49.37	C
ATOM	7810	C ALA B 460	26.087	-10.381	40.660	1.00	49.70	C
ATOM	7811	O ALA B 460	27.291	-10.328	40.385	1.00	49.95	O
ATOM	7812	O37 GW3 B 500	8.754	-1.467	61.961	1.00	21.14	O
ATOM	7813	C35 GW3 B 500	8.030	-1.164	60.974	1.00	21.33	C
ATOM	7814	O36 GW3 B 500	6.816	-0.832	61.085	1.00	21.69	O
ATOM	7815	C34 GW3 B 500	8.501	-1.270	59.540	1.00	19.45	C
ATOM	7818	C32 GW3 B 500	10.000	-1.306	59.568	1.00	21.09	C
ATOM	7819	C33 GW3 B 500	10.693	-2.503	59.749	1.00	22.33	C
ATOM	7821	C31 GW3 B 500	10.702	-0.108	59.501	1.00	20.76	C
ATOM	7823	C30 GW3 B 500	12.080	-0.101	59.610	1.00	21.26	C
ATOM	7825	C29 GW3 B 500	12.780	-1.289	59.769	1.00	20.92	C
ATOM	7827	C28 GW3 B 500	12.082	-2.495	59.849	1.00	21.78	C
ATOM	7828	O27 GW3 B 500	12.727	-3.692	60.010	1.00	21.31	O
ATOM	7829	C26 GW3 B 500	14.141	-3.775	60.164	1.00	20.96	C
ATOM	7832	C25 GW3 B 500	14.455	-5.133	60.776	1.00	21.14	C
ATOM	7835	C17 GW3 B 500	15.789	-5.126	61.531	1.00	22.57	C
ATOM	7838	N09 GW3 B 500	16.988	-5.079	60.713	1.00	22.62	N
ATOM	7839	C16 GW3 B 500	17.042	-5.980	59.567	1.00	28.24	C
ATOM	7842	C18 GW3 B 500	17.898	-5.643	58.368	1.00	34.17	C
ATOM	7843	C19 GW3 B 500	18.894	-6.616	57.880	1.00	40.22	C
ATOM	7844	CL4 GW3 B 500	19.150	-8.190	58.729	1.00	52.37	CL
ATOM	7845	C23 GW3 B 500	17.728	-4.467	57.648	1.00	37.09	C
ATOM	7847	C22 GW3 B 500	18.495	-4.181	56.512	1.00	37.81	C
ATOM	7849	C21 GW3 B 500	19.460	-5.057	56.039	1.00	38.98	C
ATOM	7851	C20 GW3 B 500	19.688	-6.273	56.678	1.00	41.52	C
ATOM	7852	C39 GW3 B 500	20.729	-7.242	56.180	1.00	43.09	C
ATOM	7853	F41 GW3 B 500	21.793	-7.133	56.983	1.00	43.65	F
ATOM	7854	F40 GW3 B 500	21.077	-6.967	54.925	1.00	42.94	F
ATOM	7855	F42 GW3 B 500	20.222	-8.479	56.232	1.00	43.14	F
ATOM	7856	C08 GW3 B 500	18.226	-4.603	61.323	1.00	19.42	C
ATOM	7859	C07 GW3 B 500	18.167	-3.135	61.780	1.00	17.71	C
ATOM	7861	C01 GW3 B 500	19.252	-2.859	62.772	1.00	16.60	C
ATOM	7862	C02 GW3 B 500	20.534	-3.387	62.647	1.00	18.23	C
ATOM	7864	C03 GW3 B 500	21.531	-3.144	63.593	1.00	17.02	C
ATOM	7866	C04 GW3 B 500	21.241	-2.336	64.672	1.00	16.12	C

ATOM	7868	C05 GW3 B 500	19.972	-1.826	64.807	1.00	14.93	C
ATOM	7870	C06 GW3 B 500	18.991	-2.065	63.868	1.00	14.57	C
ATOM	7872	C10 GW3 B 500	18.269	-2.207	60.620	1.00	15.98	C
ATOM	7873	C11 GW3 B 500	17.241	-1.306	60.395	1.00	15.06	C
ATOM	7875	C12 GW3 B 500	17.289	-0.426	59.333	1.00	15.36	C
ATOM	7877	C13 GW3 B 500	18.370	-0.448	58.464	1.00	16.16	C
ATOM	7879	C14 GW3 B 500	19.398	-1.367	58.689	1.00	16.09	C
ATOM	7881	C15 GW3 B 500	19.359	-2.222	59.771	1.00	13.56	C
ATOM	7883	O4 IOH B 501	6.727	4.693	56.348	1.00	41.79	O
ATOM	7885	C2 IOH B 501	6.928	4.483	54.955	1.00	38.97	C
ATOM	7887	C3 IOH B 501	7.991	5.407	54.403	1.00	37.54	C
ATOM	7891	C1 IOH B 501	7.342	3.044	54.790	1.00	39.36	C
ATOM	7895	N LEU C 220	-3.000	112.946	100.447	1.00	18.87	N
ATOM	7897	CA LEU C 220	-1.866	113.110	101.401	1.00	19.26	C
ATOM	7899	CB LEU C 220	-0.649	113.749	100.719	1.00	19.49	C
ATOM	7902	CG LEU C 220	0.247	112.935	99.763	1.00	19.18	C
ATOM	7904	CD1 LEU C 220	1.325	113.826	99.175	1.00	19.39	C
ATOM	7908	CD2 LEU C 220	0.900	111.790	100.458	1.00	19.53	C
ATOM	7912	C LEU C 220	-2.326	113.981	102.564	1.00	19.20	C
ATOM	7913	O LEU C 220	-2.819	115.092	102.359	1.00	19.47	O
ATOM	7916	N THR C 221	-2.195	113.457	103.781	1.00	18.88	N
ATOM	7918	CA THR C 221	-2.518	114.224	104.981	1.00	18.78	C
ATOM	7920	CB THR C 221	-2.515	113.325	106.227	1.00	18.57	C
ATOM	7922	OG1 THR C 221	-1.232	112.697	106.349	1.00	18.19	O
ATOM	7924	CG2 THR C 221	-3.513	112.156	106.089	1.00	17.48	C
ATOM	7928	C THR C 221	-1.479	115.313	105.169	1.00	18.66	C
ATOM	7929	O THR C 221	-0.394	115.246	104.605	1.00	18.69	O
ATOM	7930	N ALA C 222	-1.800	116.290	106.002	1.00	18.45	N
ATOM	7932	CA ALA C 222	-0.899	117.404	106.259	1.00	18.07	C
ATOM	7934	CB ALA C 222	-1.599	118.474	107.099	1.00	18.24	C
ATOM	7938	C ALA C 222	0.395	116.957	106.926	1.00	17.91	C
ATOM	7939	O ALA C 222	1.444	117.542	106.666	1.00	17.31	O
ATOM	7940	N ALA C 223	0.319	115.933	107.784	1.00	17.90	N
ATOM	7942	CA ALA C 223	1.515	115.342	108.397	1.00	18.20	C
ATOM	7944	CB ALA C 223	1.130	114.368	109.535	1.00	18.08	C
ATOM	7948	C ALA C 223	2.421	114.638	107.364	1.00	18.47	C
ATOM	7949	O ALA C 223	3.652	114.679	107.479	1.00	19.33	O
ATOM	7950	N GLN C 224	1.826	114.003	106.367	1.00	18.54	N
ATOM	7952	CA GLN C 224	2.597	113.414	105.265	1.00	19.03	C
ATOM	7954	CB GLN C 224	1.717	112.519	104.392	1.00	18.60	C
ATOM	7957	CG GLN C 224	1.353	111.229	105.093	1.00	18.65	C
ATOM	7960	CD GLN C 224	0.474	110.329	104.247	1.00	18.87	C
ATOM	7961	OE1 GLN C 224	-0.411	110.818	103.525	1.00	19.17	O
ATOM	7962	NE2 GLN C 224	0.727	109.009	104.309	1.00	16.75	N
ATOM	7965	C GLN C 224	3.262	114.483	104.407	1.00	19.01	C
ATOM	7966	O GLN C 224	4.418	114.355	104.064	1.00	19.36	O
ATOM	7967	N GLU C 225	2.532	115.530	104.067	1.00	19.27	N
ATOM	7969	CA GLU C 225	3.083	116.640	103.290	1.00	19.85	C

ATOM	7971	CB	GLU C 225	1.989	117.665	102.986	1.00	19.94	C
ATOM	7974	CG	GLU C 225	1.021	117.179	101.936	1.00	21.92	C
ATOM	7977	CD	GLU C 225	0.001	118.231	101.523	1.00	25.61	C
ATOM	7978	OE1	GLU C 225	-0.425	119.047	102.395	1.00	27.21	O
ATOM	7979	OE2	GLU C 225	-0.399	118.223	100.323	1.00	26.40	O
ATOM	7980	C	GLU C 225	4.230	117.336	104.021	1.00	19.69	C
ATOM	7981	O	GLU C 225	5.224	117.711	103.415	1.00	19.29	O
ATOM	7982	N	LEU C 226	4.052	117.513	105.328	1.00	19.81	N
ATOM	7984	CA	LEU C 226	5.056	118.090	106.204	1.00	19.75	C
ATOM	7986	CB	LEU C 226	4.534	118.129	107.649	1.00	19.32	C
ATOM	7989	CG	LEU C 226	5.504	118.634	108.724	1.00	18.59	C
ATOM	7991	CD1	LEU C 226	5.799	120.123	108.512	1.00	18.72	C
ATOM	7995	CD2	LEU C 226	4.932	118.394	110.102	1.00	18.51	C
ATOM	7999	C	LEU C 226	6.336	117.263	106.131	1.00	20.57	C
ATOM	8000	O	LEU C 226	7.414	117.797	105.927	1.00	20.55	O
ATOM	8001	N	MET C 227	6.202	115.956	106.272	1.00	21.50	N
ATOM	8003	CA	MET C 227	7.380	115.097	106.323	1.00	23.14	C
ATOM	8005	CB	MET C 227	7.050	113.723	106.940	1.00	23.60	C
ATOM	8008	CG	MET C 227	6.822	112.605	105.948	1.00	29.90	C
ATOM	8011	SD	MET C 227	6.915	110.955	106.707	1.00	39.06	S
ATOM	8012	CE	MET C 227	5.699	111.169	107.969	1.00	38.81	C
ATOM	8016	C	MET C 227	8.083	115.007	104.949	1.00	22.02	C
ATOM	8017	O	MET C 227	9.303	115.057	104.888	1.00	22.38	O
ATOM	8018	N	ILE C 228	7.318	114.931	103.869	1.00	20.67	N
ATOM	8020	CA	ILE C 228	7.885	114.908	102.516	1.00	19.93	C
ATOM	8022	CB	ILE C 228	6.793	114.573	101.470	1.00	19.41	C
ATOM	8024	CG1	ILE C 228	6.298	113.147	101.664	1.00	18.75	C
ATOM	8027	CD1	ILE C 228	4.906	112.910	101.081	1.00	19.38	C
ATOM	8031	CG2	ILE C 228	7.306	114.765	100.055	1.00	19.58	C
ATOM	8035	C	ILE C 228	8.580	116.223	102.144	1.00	19.60	C
ATOM	8036	O	ILE C 228	9.687	116.196	101.642	1.00	19.79	O
ATOM	8037	N	GLN C 229	7.917	117.361	102.374	1.00	19.12	N
ATOM	8039	CA	GLN C 229	8.504	118.681	102.153	1.00	18.52	C
ATOM	8041	CB	GLN C 229	7.466	119.810	102.366	1.00	18.93	C
ATOM	8044	CG	GLN C 229	6.339	119.892	101.282	1.00	20.68	C
ATOM	8047	CD	GLN C 229	5.131	120.826	101.661	1.00	23.87	C
ATOM	8048	OE1	GLN C 229	4.691	121.645	100.845	1.00	24.75	O
ATOM	8049	NE2	GLN C 229	4.609	120.687	102.885	1.00	26.71	N
ATOM	8052	C	GLN C 229	9.738	118.890	103.042	1.00	17.73	C
ATOM	8053	O	GLN C 229	10.683	119.534	102.633	1.00	17.45	O
ATOM	8054	N	GLN C 230	9.738	118.332	104.248	1.00	16.98	N
ATOM	8056	CA	GLN C 230	10.945	118.321	105.078	1.00	16.64	C
ATOM	8058	CB	GLN C 230	10.707	117.558	106.391	1.00	16.42	C
ATOM	8061	CG	GLN C 230	11.836	117.685	107.371	1.00	15.46	C
ATOM	8064	CD	GLN C 230	11.893	119.027	108.013	1.00	14.19	C
ATOM	8065	OE1	GLN C 230	11.112	119.916	107.695	1.00	17.78	O
ATOM	8066	NE2	GLN C 230	12.827	119.198	108.917	1.00	19.79	N
ATOM	8069	C	GLN C 230	12.143	117.666	104.377	1.00	16.24	C

ATOM	8070	O	GLN C 230	13.230	118.227	104.372	1.00	15.92	O
ATOM	8071	N	LEU C 231	11.918	116.481	103.805	1.00	15.98	N
ATOM	8073	CA	LEU C 231	12.954	115.694	103.141	1.00	16.11	C
ATOM	8075	CB	LEU C 231	12.411	114.320	102.691	1.00	16.41	C
ATOM	8078	CG	LEU C 231	12.065	113.304	103.790	1.00	15.91	C
ATOM	8080	CD1	LEU C 231	11.800	111.893	103.219	1.00	15.15	C
ATOM	8084	CD2	LEU C 231	13.170	113.251	104.823	1.00	17.22	C
ATOM	8088	C	LEU C 231	13.485	116.430	101.942	1.00	16.02	C
ATOM	8089	O	LEU C 231	14.678	116.480	101.726	1.00	16.40	O
ATOM	8090	N	VAL C 232	12.591	117.047	101.191	1.00	16.32	N
ATOM	8092	CA	VAL C 232	12.930	117.678	99.924	1.00	15.86	C
ATOM	8094	CB	VAL C 232	11.656	117.989	99.145	1.00	15.91	C
ATOM	8096	CG1	VAL C 232	11.911	118.873	97.916	1.00	15.14	C
ATOM	8100	CG2	VAL C 232	10.979	116.688	98.736	1.00	16.53	C
ATOM	8104	C	VAL C 232	13.721	118.933	100.198	1.00	16.07	C
ATOM	8105	O	VAL C 232	14.623	119.287	99.448	1.00	15.57	O
ATOM	8106	N	ALA C 233	13.384	119.598	101.288	1.00	16.72	N
ATOM	8108	CA	ALA C 233	13.974	120.887	101.599	1.00	17.30	C
ATOM	8110	CB	ALA C 233	13.088	121.677	102.551	1.00	17.06	C
ATOM	8114	C	ALA C 233	15.352	120.678	102.198	1.00	18.01	C
ATOM	8115	O	ALA C 233	16.247	121.479	101.957	1.00	18.07	O
ATOM	8116	N	ALA C 234	15.511	119.608	102.978	1.00	18.89	N
ATOM	8118	CA	ALA C 234	16.817	119.210	103.489	1.00	20.13	C
ATOM	8120	CB	ALA C 234	16.679	118.070	104.482	1.00	20.02	C
ATOM	8124	C	ALA C 234	17.756	118.801	102.355	1.00	21.35	C
ATOM	8125	O	ALA C 234	18.930	119.110	102.379	1.00	21.43	O
ATOM	8126	N	GLN C 235	17.222	118.093	101.373	1.00	23.22	N
ATOM	8128	CA	GLN C 235	17.988	117.635	100.218	1.00	24.76	C
ATOM	8130	CB	GLN C 235	17.101	116.786	99.311	1.00	24.76	C
ATOM	8133	CG	GLN C 235	17.864	115.909	98.363	1.00	26.38	C
ATOM	8136	CD	GLN C 235	16.978	114.874	97.687	1.00	27.51	C
ATOM	8137	OE1	GLN C 235	16.122	115.215	96.865	1.00	28.36	O
ATOM	8138	NE2	GLN C 235	17.191	113.615	98.019	1.00	29.14	N
ATOM	8141	C	GLN C 235	18.514	118.837	99.451	1.00	25.74	C
ATOM	8142	O	GLN C 235	19.696	118.930	99.185	1.00	25.87	O
ATOM	8143	N	LEU C 236	17.620	119.771	99.140	1.00	27.09	N
ATOM	8145	CA	LEU C 236	17.975	120.996	98.459	1.00	28.40	C
ATOM	8147	CB	LEU C 236	16.730	121.850	98.198	1.00	28.61	C
ATOM	8150	CG	LEU C 236	16.998	123.063	97.296	1.00	29.58	C
ATOM	8152	CD1	LEU C 236	17.126	122.638	95.812	1.00	29.51	C
ATOM	8156	CD2	LEU C 236	15.934	124.145	97.481	1.00	29.96	C
ATOM	8160	C	LEU C 236	18.997	121.809	99.246	1.00	29.64	C
ATOM	8161	O	LEU C 236	19.898	122.392	98.652	1.00	29.50	O
ATOM	8162	N	GLN C 237	18.853	121.844	100.569	1.00	30.95	N
ATOM	8164	CA	GLN C 237	19.717	122.657	101.421	1.00	32.29	C
ATOM	8166	CB	GLN C 237	19.109	122.819	102.829	1.00	32.69	C
ATOM	8169	CG	GLN C 237	18.026	123.911	102.926	1.00	34.37	C
ATOM	8172	CD	GLN C 237	17.703	124.358	104.366	1.00	36.57	C

116

ATOM	8173	OE1 GLN C 237	18.165	123.763	105.354	1.00	37.85	O
ATOM	8174	NE2 GLN C 237	16.912	125.420	104.474	1.00	36.78	N
ATOM	8177	C GLN C 237	21.110	122.042	101.515	1.00	33.08	C
ATOM	8178	O GLN C 237	22.104	122.759	101.564	1.00	32.91	O
ATOM	8179	N CYS C 238	21.161	120.711	101.522	1.00	34.30	N
ATOM	8181	CA CYS C 238	22.404	119.959	101.674	1.00	35.29	C
ATOM	8183	CB CYS C 238	22.130	118.495	102.050	1.00	35.18	C
ATOM	8186	SG CYS C 238	21.945	118.233	103.840	1.00	36.28	S
ATOM	8187	C CYS C 238	23.215	120.026	100.398	1.00	36.15	C
ATOM	8188	O CYS C 238	24.426	120.198	100.446	1.00	36.59	O
ATOM	8189	N ASN C 239	22.539	119.924	99.260	1.00	37.18	N
ATOM	8191	CA ASN C 239	23.199	119.984	97.955	1.00	38.14	C
ATOM	8193	CB ASN C 239	22.407	119.148	96.918	1.00	38.24	C
ATOM	8196	CG ASN C 239	22.074	119.921	95.658	1.00	39.13	C
ATOM	8197	OD1 ASN C 239	20.957	120.427	95.500	1.00	39.88	O
ATOM	8198	ND2 ASN C 239	23.046	120.017	94.748	1.00	39.76	N
ATOM	8201	C ASN C 239	23.484	121.448	97.498	1.00	38.61	C
ATOM	8202	O ASN C 239	24.366	121.689	96.666	1.00	38.64	O
ATOM	8203	N LYS C 240	22.757	122.411	98.070	1.00	39.15	N
ATOM	8205	CA LYS C 240	23.052	123.841	97.901	1.00	39.51	C
ATOM	8207	CB LYS C 240	21.867	124.704	98.381	1.00	39.54	C
ATOM	8210	CG LYS C 240	22.137	126.215	98.547	1.00	39.40	C
ATOM	8213	CD LYS C 240	20.992	126.934	99.298	1.00	39.36	C
ATOM	8216	CE LYS C 240	21.499	127.786	100.484	1.00	39.27	C
ATOM	8219	NZ LYS C 240	22.193	129.051	100.069	1.00	37.35	N
ATOM	8223	C LYS C 240	24.325	124.188	98.681	1.00	39.89	C
ATOM	8224	O LYS C 240	25.037	125.136	98.334	1.00	39.84	O
ATOM	8225	N ARG C 241	24.608	123.397	99.718	1.00	40.30	N
ATOM	8227	CA ARG C 241	25.792	123.575	100.564	1.00	40.69	C
ATOM	8229	CB ARG C 241	25.636	122.759	101.864	1.00	40.77	C
ATOM	8232	CG ARG C 241	26.249	123.401	103.111	1.00	41.52	C
ATOM	8235	CD ARG C 241	25.525	123.062	104.433	1.00	42.15	C
ATOM	8238	NE ARG C 241	24.353	123.917	104.653	1.00	43.09	N
ATOM	8240	CZ ARG C 241	24.387	125.216	104.988	1.00	44.14	C
ATOM	8241	NH1 ARG C 241	25.543	125.864	105.164	1.00	44.34	N
ATOM	8244	NH2 ARG C 241	23.244	125.881	105.147	1.00	44.22	N
ATOM	8247	C ARG C 241	27.115	123.201	99.869	1.00	40.77	C
ATOM	8248	O ARG C 241	28.187	123.438	100.425	1.00	40.80	O
ATOM	8249	N SER C 242	27.032	122.620	98.668	1.00	41.06	N
ATOM	8251	CA SER C 242	28.210	122.219	97.882	1.00	41.04	C
ATOM	8253	CB SER C 242	28.141	120.723	97.598	1.00	41.11	C
ATOM	8256	OG SER C 242	27.716	120.028	98.761	1.00	40.52	O
ATOM	8258	C SER C 242	28.383	122.981	96.559	1.00	41.14	C
ATOM	8259	O SER C 242	29.381	122.784	95.860	1.00	41.28	O
ATOM	8260	N PHE C 243	27.417	123.831	96.210	1.00	41.19	N
ATOM	8262	CA PHE C 243	27.605	124.812	95.134	1.00	41.30	C
ATOM	8264	CB PHE C 243	26.339	125.665	94.910	1.00	41.49	C
ATOM	8267	CG PHE C 243	25.168	124.930	94.268	1.00	42.57	C

ATOM	8268	CD1 PHE C 243	25.188	123.547	94.038	1.00	43.04	C
ATOM	8270	CE1 PHE C 243	24.091	122.905	93.457	1.00	43.24	C
ATOM	8272	CZ PHE C 243	22.962	123.636	93.103	1.00	43.20	C
ATOM	8274	CE2 PHE C 243	22.927	125.007	93.328	1.00	43.18	C
ATOM	8276	CD2 PHE C 243	24.024	125.646	93.906	1.00	43.10	C
ATOM	8278	C PHE C 243	28.756	125.755	95.506	1.00	40.99	C
ATOM	8279	O PHE C 243	29.512	126.199	94.635	1.00	41.16	O
ATOM	8280	N SER C 244	28.863	126.054	96.805	1.00	40.55	N
ATOM	8282	CA SER C 244	29.876	126.974	97.349	1.00	40.11	C
ATOM	8284	CB SER C 244	29.395	127.581	98.681	1.00	40.14	C
ATOM	8287	OG SER C 244	28.665	126.642	99.463	1.00	40.31	O
ATOM	8289	C SER C 244	31.255	126.328	97.544	1.00	39.56	C
ATOM	8290	O SER C 244	32.270	127.029	97.554	1.00	39.45	O
ATOM	8291	N ASP C 245	31.282	125.001	97.699	1.00	38.94	N
ATOM	8293	CA ASP C 245	32.531	124.242	97.862	1.00	38.34	C
ATOM	8295	CB ASP C 245	32.282	122.993	98.732	1.00	38.29	C
ATOM	8298	CG ASP C 245	31.840	123.336	100.166	1.00	38.21	C
ATOM	8299	OD1 ASP C 245	32.144	124.445	100.661	1.00	37.96	O
ATOM	8300	OD2 ASP C 245	31.190	122.543	100.882	1.00	37.27	O
ATOM	8301	C ASP C 245	33.187	123.834	96.520	1.00	37.78	C
ATOM	8302	O ASP C 245	34.162	123.085	96.507	1.00	37.74	O
ATOM	8303	N GLN C 246	32.659	124.335	95.404	1.00	37.07	N
ATOM	8305	CA GLN C 246	33.203	124.045	94.069	1.00	36.48	C
ATOM	8307	CB GLN C 246	32.240	124.531	92.973	1.00	36.56	C
ATOM	8310	CG GLN C 246	31.620	123.413	92.153	1.00	36.81	C
ATOM	8313	CD GLN C 246	30.925	123.916	90.898	1.00	37.34	C
ATOM	8314	OE1 GLN C 246	31.495	124.698	90.133	1.00	37.73	O
ATOM	8315	NE2 GLN C 246	29.696	123.468	90.684	1.00	36.99	N
ATOM	8318	C GLN C 246	34.600	124.624	93.789	1.00	35.79	C
ATOM	8319	O GLN C 246	35.441	123.930	93.215	1.00	35.64	O
ATOM	8320	N PRO C 247	34.853	125.881	94.167	1.00	34.98	N
ATOM	8321	CA PRO C 247	36.138	126.525	93.844	1.00	34.39	C
ATOM	8323	CB PRO C 247	35.916	128.005	94.218	1.00	34.46	C
ATOM	8326	CG PRO C 247	34.498	128.134	94.692	1.00	34.61	C
ATOM	8329	CD PRO C 247	33.962	126.776	94.927	1.00	34.91	C
ATOM	8332	C PRO C 247	37.370	125.961	94.581	1.00	33.70	C
ATOM	8333	O PRO C 247	38.491	126.285	94.168	1.00	33.73	O
ATOM	8334	N LYS C 248	37.172	125.159	95.634	1.00	32.78	N
ATOM	8336	CA LYS C 248	38.282	124.559	96.383	1.00	31.98	C
ATOM	8338	CB LYS C 248	38.239	124.984	97.857	1.00	31.98	C
ATOM	8341	CG LYS C 248	38.585	126.457	98.091	1.00	31.80	C
ATOM	8344	CD LYS C 248	40.083	126.732	97.993	1.00	31.11	C
ATOM	8347	CE LYS C 248	40.354	128.051	97.282	1.00	31.01	C
ATOM	8350	NZ LYS C 248	41.728	128.557	97.541	1.00	30.77	N
ATOM	8354	C LYS C 248	38.274	123.037	96.264	1.00	31.22	C
ATOM	8355	O LYS C 248	38.158	122.320	97.259	1.00	31.21	O
ATOM	8356	N VAL C 249	38.374	122.567	95.025	1.00	30.37	N
ATOM	8358	CA VAL C 249	38.574	121.151	94.713	1.00	29.85	C

ATOM	8360	CB VAL C 249	37.283	120.514	94.110	1.00	29.80	C
ATOM	8362	CG1 VAL C 249	37.490	119.038	93.774	1.00	29.53	C
ATOM	8366	CG2 VAL C 249	36.102	120.671	95.066	1.00	29.75	C
ATOM	8370	C VAL C 249	39.729	121.052	93.716	1.00	29.44	C
ATOM	8371	O VAL C 249	40.034	122.026	93.027	1.00	29.48	O
ATOM	8372	N THR C 250	40.387	119.897	93.650	1.00	28.90	N
ATOM	8374	CA THR C 250	41.409	119.664	92.633	1.00	28.57	C
ATOM	8376	CB THR C 250	41.937	118.215	92.714	1.00	28.56	C
ATOM	8378	OG1 THR C 250	42.623	118.016	93.955	1.00	28.79	O
ATOM	8380	CG2 THR C 250	43.017	117.951	91.661	1.00	28.45	C
ATOM	8384	C THR C 250	40.786	119.916	91.259	1.00	28.27	C
ATOM	8385	O THR C 250	39.830	119.224	90.902	1.00	28.29	O
ATOM	8386	N PRO C 251	41.284	120.911	90.509	1.00	27.77	N
ATOM	8387	CA PRO C 251	40.749	121.209	89.169	1.00	27.44	C
ATOM	8389	CB PRO C 251	41.597	122.408	88.698	1.00	27.49	C
ATOM	8392	CG PRO C 251	42.210	122.975	89.924	1.00	27.63	C
ATOM	8395	CD PRO C 251	42.374	121.835	90.876	1.00	27.77	C
ATOM	8398	C PRO C 251	40.902	120.034	88.199	1.00	27.10	C
ATOM	8399	O PRO C 251	42.026	119.563	87.992	1.00	27.15	O
ATOM	8400	N TRP C 252	39.791	119.586	87.615	1.00	26.58	N
ATOM	8402	CA TRP C 252	39.769	118.400	86.751	1.00	26.32	C
ATOM	8404	CB TRP C 252	38.529	118.429	85.843	1.00	26.17	C
ATOM	8407	CG TRP C 252	38.481	117.305	84.848	1.00	26.16	C
ATOM	8408	CD1 TRP C 252	38.671	117.394	83.495	1.00	26.45	C
ATOM	8410	NE1 TRP C 252	38.563	116.152	82.917	1.00	26.21	N
ATOM	8412	CE2 TRP C 252	38.304	115.230	83.896	1.00	26.08	C
ATOM	8413	CD2 TRP C 252	38.252	115.924	85.126	1.00	25.85	C
ATOM	8414	CE3 TRP C 252	38.000	115.195	86.293	1.00	26.34	C
ATOM	8416	CZ3 TRP C 252	37.806	113.825	86.201	1.00	26.27	C
ATOM	8418	CH2 TRP C 252	37.868	113.167	84.962	1.00	26.42	C
ATOM	8420	CZ2 TRP C 252	38.114	113.851	83.803	1.00	26.19	C
ATOM	8422	C TRP C 252	41.055	118.218	85.919	1.00	26.10	C
ATOM	8423	O TRP C 252	41.200	118.760	84.825	1.00	25.72	O
ATOM	8424	N ARG C 264	45.285	110.592	85.368	1.00	20.90	N
ATOM	8426	CA ARG C 264	44.717	109.405	85.998	1.00	20.95	C
ATOM	8428	CB ARG C 264	45.561	108.170	85.664	1.00	21.07	C
ATOM	8431	CG ARG C 264	45.200	107.505	84.337	1.00	21.24	C
ATOM	8434	CD ARG C 264	44.318	106.252	84.458	1.00	21.59	C
ATOM	8437	NE ARG C 264	44.886	105.110	83.734	1.00	21.88	N
ATOM	8439	CZ ARG C 264	44.195	104.060	83.278	1.00	21.84	C
ATOM	8440	NH1 ARG C 264	42.878	103.963	83.459	1.00	21.38	N
ATOM	8443	NH2 ARG C 264	44.837	103.089	82.630	1.00	21.63	N
ATOM	8446	C ARG C 264	44.615	109.579	87.513	1.00	20.92	C
ATOM	8447	O ARG C 264	43.539	109.401	88.095	1.00	20.89	O
ATOM	8448	N GLN C 265	45.735	109.931	88.142	1.00	20.82	N
ATOM	8450	CA GLN C 265	45.805	110.075	89.601	1.00	20.79	C
ATOM	8452	CB GLN C 265	47.218	109.772	90.117	1.00	20.82	C
ATOM	8455	CG GLN C 265	47.861	108.481	89.567	1.00	20.84	C

ATOM	8458	CD	GLN	C	265	47.704	107.288	90.497	1.00	20.48	C
ATOM	8459	OE1	GLN	C	265	46.649	107.105	91.114	1.00	19.44	O
ATOM	8460	NE2	GLN	C	265	48.753	106.474	90.597	1.00	19.51	N
ATOM	8463	C	GLN	C	265	45.376	111.476	90.055	1.00	20.74	C
ATOM	8464	O	GLN	C	265	44.912	111.650	91.183	1.00	20.71	O
ATOM	8465	N	GLN	C	266	45.537	112.465	89.174	1.00	20.57	N
ATOM	8467	CA	GLN	C	266	45.069	113.830	89.426	1.00	20.43	C
ATOM	8469	CB	GLN	C	266	45.622	114.792	88.371	1.00	20.43	C
ATOM	8472	CG	GLN	C	266	47.155	114.861	88.305	1.00	20.22	C
ATOM	8475	CD	GLN	C	266	47.657	115.901	87.323	1.00	19.98	C
ATOM	8476	OE1	GLN	C	266	48.641	115.671	86.617	1.00	20.15	O
ATOM	8477	NE2	GLN	C	266	46.990	117.048	87.277	1.00	19.72	N
ATOM	8480	C	GLN	C	266	43.545	113.891	89.401	1.00	20.42	C
ATOM	8481	O	GLN	C	266	42.934	114.711	90.089	1.00	20.27	O
ATOM	8482	N	ARG	C	267	42.949	113.027	88.580	1.00	20.42	N
ATOM	8484	CA	ARG	C	267	41.499	112.910	88.461	1.00	20.37	C
ATOM	8486	CB	ARG	C	267	41.107	112.392	87.071	1.00	20.42	C
ATOM	8489	CG	ARG	C	267	41.586	113.274	85.908	1.00	20.99	C
ATOM	8492	CD	ARG	C	267	42.687	112.641	85.035	1.00	20.90	C
ATOM	8495	NE	ARG	C	267	42.895	113.349	83.768	1.00	20.87	N
ATOM	8497	CZ	ARG	C	267	42.056	113.328	82.731	1.00	20.65	C
ATOM	8498	NH1	ARG	C	267	40.916	112.640	82.774	1.00	20.84	N
ATOM	8501	NH2	ARG	C	267	42.354	114.011	81.637	1.00	20.00	N
ATOM	8504	C	ARG	C	267	40.938	111.982	89.533	1.00	20.31	C
ATOM	8505	O	ARG	C	267	39.763	112.091	89.896	1.00	20.33	O
ATOM	8506	N	PHE	C	268	41.772	111.075	90.040	1.00	20.11	N
ATOM	8508	CA	PHE	C	268	41.390	110.250	91.182	1.00	19.98	C
ATOM	8510	CB	PHE	C	268	42.315	109.039	91.341	1.00	20.00	C
ATOM	8513	CG	PHE	C	268	41.736	107.952	92.207	1.00	20.22	C
ATOM	8514	CD1	PHE	C	268	40.581	107.276	91.816	1.00	20.27	C
ATOM	8516	CE1	PHE	C	268	40.033	106.277	92.615	1.00	20.27	C
ATOM	8518	CZ	PHE	C	268	40.635	105.946	93.824	1.00	20.50	C
ATOM	8520	CE2	PHE	C	268	41.791	106.612	94.227	1.00	20.51	C
ATOM	8522	CD2	PHE	C	268	42.333	107.611	93.421	1.00	20.26	C
ATOM	8524	C	PHE	C	268	41.381	111.091	92.461	1.00	19.85	C
ATOM	8525	O	PHE	C	268	40.639	110.801	93.387	1.00	19.72	O
ATOM	8526	N	ALA	C	269	42.207	112.133	92.500	1.00	19.78	N
ATOM	8528	CA	ALA	C	269	42.180	113.105	93.589	1.00	19.64	C
ATOM	8530	CB	ALA	C	269	43.423	113.990	93.541	1.00	19.62	C
ATOM	8534	C	ALA	C	269	40.921	113.957	93.475	1.00	19.48	C
ATOM	8535	O	ALA	C	269	40.405	114.459	94.471	1.00	19.39	O
ATOM	8536	N	HIS	C	270	40.440	114.119	92.246	1.00	19.23	N
ATOM	8538	CA	HIS	C	270	39.238	114.888	91.978	1.00	19.12	C
ATOM	8540	CB	HIS	C	270	39.206	115.315	90.512	1.00	19.16	C
ATOM	8543	CG	HIS	C	270	38.099	116.264	90.199	1.00	19.71	C
ATOM	8544	ND1	HIS	C	270	38.089	117.564	90.652	1.00	20.24	N
ATOM	8546	CE1	HIS	C	270	36.985	118.160	90.239	1.00	20.68	C
ATOM	8548	NE2	HIS	C	270	36.277	117.290	89.541	1.00	20.51	N

120

ATOM	8550	CD2 HIS C 270	36.948	116.093	89.509	1.00	19.93	C
ATOM	8552	C HIS C 270	37.965	114.111	92.336	1.00	18.88	C
ATOM	8553	O HIS C 270	37.127	114.609	93.081	1.00	18.65	O
ATOM	8554	N PHE C 271	37.835	112.896	91.803	1.00	18.69	N
ATOM	8556	CA PHE C 271	36.668	112.035	92.044	1.00	18.42	C
ATOM	8558	CB PHE C 271	36.775	110.735	91.226	1.00	18.48	C
ATOM	8561	CG PHE C 271	36.122	110.799	89.872	1.00	18.10	C
ATOM	8562	CD1 PHE C 271	36.888	110.860	88.719	1.00	17.95	C
ATOM	8564	CE1 PHE C 271	36.289	110.908	87.468	1.00	18.02	C
ATOM	8566	CZ PHE C 271	34.914	110.887	87.359	1.00	18.02	C
ATOM	8568	CE2 PHE C 271	34.135	110.813	88.504	1.00	17.76	C
ATOM	8570	CD2 PHE C 271	34.742	110.764	89.750	1.00	17.92	C
ATOM	8572	C PHE C 271	36.523	111.669	93.522	1.00	18.29	C
ATOM	8573	O PHE C 271	35.416	111.524	94.022	1.00	18.03	O
ATOM	8574	N THR C 272	37.655	111.509	94.202	1.00	18.33	N
ATOM	8576	CA THR C 272	37.685	111.099	95.603	1.00	18.31	C
ATOM	8578	CB THR C 272	39.091	110.549	95.983	1.00	18.17	C
ATOM	8580	OG1 THR C 272	39.015	109.830	97.215	1.00	18.89	O
ATOM	8582	CG2 THR C 272	40.101	111.664	96.276	1.00	18.00	C
ATOM	8586	C THR C 272	37.265	112.233	96.541	1.00	18.28	C
ATOM	8587	O THR C 272	36.596	111.987	97.546	1.00	18.32	O
ATOM	8588	N GLU C 273	37.659	113.464	96.210	1.00	18.25	N
ATOM	8590	CA GLU C 273	37.298	114.644	97.002	1.00	18.23	C
ATOM	8592	CB GLU C 273	38.113	115.878	96.570	1.00	18.38	C
ATOM	8595	CG GLU C 273	39.536	115.927	97.123	1.00	18.56	C
ATOM	8598	CD GLU C 273	40.359	117.064	96.531	1.00	20.02	C
ATOM	8599	OE1 GLU C 273	41.547	116.848	96.169	1.00	18.94	O
ATOM	8600	OE2 GLU C 273	39.813	118.186	96.429	1.00	21.08	O
ATOM	8601	C GLU C 273	35.801	114.918	96.886	1.00	18.09	C
ATOM	8602	O GLU C 273	35.174	115.382	97.844	1.00	18.05	O
ATOM	8603	N LEU C 274	35.234	114.612	95.718	1.00	17.89	N
ATOM	8605	CA LEU C 274	33.791	114.713	95.492	1.00	17.64	C
ATOM	8607	CB LEU C 274	33.456	114.518	94.016	1.00	17.55	C
ATOM	8610	CG LEU C 274	33.964	115.597	93.066	1.00	17.32	C
ATOM	8612	CD1 LEU C 274	33.914	115.071	91.641	1.00	17.35	C
ATOM	8616	CD2 LEU C 274	33.149	116.873	93.207	1.00	16.94	C
ATOM	8620	C LEU C 274	33.013	113.683	96.293	1.00	17.56	C
ATOM	8621	O LEU C 274	31.890	113.948	96.704	1.00	17.68	O
ATOM	8622	N ALA C 275	33.600	112.503	96.481	1.00	17.44	N
ATOM	8624	CA ALA C 275	32.977	111.439	97.266	1.00	17.50	C
ATOM	8626	CB ALA C 275	33.681	110.105	97.010	1.00	17.41	C
ATOM	8630	C ALA C 275	32.979	111.777	98.766	1.00	17.56	C
ATOM	8631	O ALA C 275	32.071	111.395	99.476	1.00	17.28	O
ATOM	8632	N ILE C 276	34.006	112.489	99.226	1.00	17.77	N
ATOM	8634	CA ILE C 276	34.086	112.970	100.603	1.00	18.09	C
ATOM	8636	CB ILE C 276	35.524	113.513	100.918	1.00	18.03	C
ATOM	8638	CG1 ILE C 276	36.571	112.390	100.870	1.00	17.64	C
ATOM	8641	CD1 ILE C 276	37.972	112.880	100.503	1.00	16.29	C

ATOM	8645	CG2 ILE C 276	35.581	114.201	102.279	1.00	18.02	C
ATOM	8649	C ILE C 276	33.035	114.066	100.849	1.00	18.55	C
ATOM	8650	O ILE C 276	32.465	114.139	101.940	1.00	19.12	O
ATOM	8651	N ILE C 277	32.788	114.909	99.842	1.00	18.93	N
ATOM	8653	CA ILE C 277	31.794	115.992	99.930	1.00	18.94	C
ATOM	8655	CB ILE C 277	31.920	116.946	98.719	1.00	18.90	C
ATOM	8657	CG1 ILE C 277	33.142	117.847	98.880	1.00	18.98	C
ATOM	8660	CD1 ILE C 277	33.605	118.494	97.580	1.00	19.40	C
ATOM	8664	CG2 ILE C 277	30.675	117.811	98.572	1.00	19.13	C
ATOM	8668	C ILE C 277	30.386	115.414	99.994	1.00	19.04	C
ATOM	8669	O ILE C 277	29.513	115.930	100.698	1.00	18.75	O
ATOM	8670	N SER C 278	30.188	114.337	99.237	1.00	19.30	N
ATOM	8672	CA SER C 278	28.929	113.597	99.207	1.00	19.22	C
ATOM	8674	CB SER C 278	28.970	112.576	98.068	1.00	18.81	C
ATOM	8677	OG SER C 278	27.859	111.716	98.118	1.00	18.64	O
ATOM	8679	C SER C 278	28.641	112.907	100.549	1.00	19.34	C
ATOM	8680	O SER C 278	27.498	112.856	100.984	1.00	19.25	O
ATOM	8681	N VAL C 279	29.680	112.393	101.203	1.00	19.70	N
ATOM	8683	CA VAL C 279	29.542	111.791	102.536	1.00	20.08	C
ATOM	8685	CB VAL C 279	30.831	111.079	102.953	1.00	20.11	C
ATOM	8687	CG1 VAL C 279	30.789	110.670	104.441	1.00	19.99	C
ATOM	8691	CG2 VAL C 279	31.057	109.867	102.058	1.00	20.17	C
ATOM	8695	C VAL C 279	29.151	112.822	103.614	1.00	20.30	C
ATOM	8696	O VAL C 279	28.395	112.498	104.535	1.00	20.11	O
ATOM	8697	N GLN C 280	29.670	114.047	103.491	1.00	20.49	N
ATOM	8699	CA GLN C 280	29.314	115.138	104.396	1.00	20.66	C
ATOM	8701	CB GLN C 280	30.201	116.365	104.155	1.00	20.88	C
ATOM	8704	CG GLN C 280	31.480	116.379	104.999	1.00	21.38	C
ATOM	8707	CD GLN C 280	32.584	117.276	104.430	1.00	22.27	C
ATOM	8708	OE1 GLN C 280	32.675	117.479	103.215	1.00	22.78	O
ATOM	8709	NE2 GLN C 280	33.426	117.803	105.310	1.00	21.95	N
ATOM	8712	C GLN C 280	27.840	115.506	104.233	1.00	20.80	C
ATOM	8713	O GLN C 280	27.099	115.550	105.215	1.00	20.77	O
ATOM	8714	N GLU C 281	27.417	115.745	102.991	1.00	20.96	N
ATOM	8716	CA GLU C 281	26.015	116.037	102.670	1.00	20.77	C
ATOM	8718	CB GLU C 281	25.820	116.136	101.165	1.00	20.94	C
ATOM	8721	CG GLU C 281	26.267	117.446	100.558	1.00	22.11	C
ATOM	8724	CD GLU C 281	26.179	117.440	99.041	1.00	23.98	C
ATOM	8725	OE1 GLU C 281	25.462	116.585	98.477	1.00	23.39	O
ATOM	8726	OE2 GLU C 281	26.852	118.288	98.409	1.00	25.90	O
ATOM	8727	C GLU C 281	25.072	114.962	103.176	1.00	20.66	C
ATOM	8728	O GLU C 281	24.012	115.273	103.703	1.00	20.93	O
ATOM	8729	N ILE C 282	25.456	113.703	103.003	1.00	20.10	N
ATOM	8731	CA ILE C 282	24.625	112.581	103.424	1.00	20.08	C
ATOM	8733	CB ILE C 282	25.168	111.241	102.838	1.00	19.67	C
ATOM	8735	CG1 ILE C 282	24.892	111.181	101.326	1.00	20.08	C
ATOM	8738	CD1 ILE C 282	25.763	110.181	100.558	1.00	18.91	C
ATOM	8742	CG2 ILE C 282	24.530	110.039	103.508	1.00	19.32	C

122

ATOM	8746	C	ILE C 282	24.471	112.522	104.958	1.00	20.40	C
ATOM	8747	O	ILE C 282	23.381	112.236	105.455	1.00	20.50	O
ATOM	8748	N	VAL C 283	25.538	112.797	105.705	1.00	20.21	N
ATOM	8750	CA	VAL C 283	25.423	112.833	107.154	1.00	20.27	C
ATOM	8752	CB	VAL C 283	26.806	112.938	107.867	1.00	20.52	C
ATOM	8754	CG1	VAL C 283	26.633	113.169	109.379	1.00	20.58	C
ATOM	8758	CG2	VAL C 283	27.647	111.682	107.624	1.00	20.67	C
ATOM	8762	C	VAL C 283	24.534	114.009	107.556	1.00	20.22	C
ATOM	8763	O	VAL C 283	23.676	113.865	108.419	1.00	20.19	O
ATOM	8764	N	ASP C 284	24.731	115.167	106.930	1.00	20.08	N
ATOM	8766	CA	ASP C 284	23.940	116.339	107.276	1.00	20.18	C
ATOM	8768	CB	ASP C 284	24.420	117.573	106.530	1.00	20.38	C
ATOM	8771	CG	ASP C 284	25.716	118.093	107.058	1.00	21.04	C
ATOM	8772	OD1	ASP C 284	26.314	118.964	106.387	1.00	22.47	O
ATOM	8773	OD2	ASP C 284	26.217	117.690	108.132	1.00	23.11	O
ATOM	8774	C	ASP C 284	22.473	116.103	106.965	1.00	20.14	C
ATOM	8775	O	ASP C 284	21.614	116.437	107.772	1.00	19.94	O
ATOM	8776	N	PHE C 285	22.206	115.515	105.803	1.00	19.83	N
ATOM	8778	CA	PHE C 285	20.852	115.144	105.409	1.00	20.41	C
ATOM	8780	CB	PHE C 285	20.817	114.581	103.973	1.00	20.04	C
ATOM	8783	CG	PHE C 285	19.473	114.040	103.557	1.00	19.95	C
ATOM	8784	CD1	PHE C 285	18.520	114.868	102.973	1.00	21.97	C
ATOM	8786	CE1	PHE C 285	17.260	114.370	102.591	1.00	20.13	C
ATOM	8788	CZ	PHE C 285	16.954	113.049	102.813	1.00	20.23	C
ATOM	8790	CE2	PHE C 285	17.895	112.212	103.409	1.00	19.22	C
ATOM	8792	CD2	PHE C 285	19.142	112.711	103.779	1.00	19.53	C
ATOM	8794	C	PHE C 285	20.220	114.150	106.407	1.00	21.03	C
ATOM	8795	O	PHE C 285	19.068	114.320	106.798	1.00	21.37	O
ATOM	8796	N	ALA C 286	20.960	113.141	106.844	1.00	21.81	N
ATOM	8798	CA	ALA C 286	20.373	112.111	107.709	1.00	22.58	C
ATOM	8800	CB	ALA C 286	21.329	110.961	107.908	1.00	22.49	C
ATOM	8804	C	ALA C 286	19.932	112.678	109.058	1.00	22.87	C
ATOM	8805	O	ALA C 286	18.931	112.253	109.613	1.00	22.86	O
ATOM	8806	N	LYS C 287	20.655	113.663	109.564	1.00	23.73	N
ATOM	8808	CA	LYS C 287	20.316	114.248	110.865	1.00	24.44	C
ATOM	8810	CB	LYS C 287	21.479	115.080	111.405	1.00	24.36	C
ATOM	8813	CG	LYS C 287	22.745	114.257	111.706	1.00	25.81	C
ATOM	8816	CD	LYS C 287	23.046	114.156	113.222	1.00	28.99	C
ATOM	8819	CE	LYS C 287	24.542	114.338	113.566	1.00	30.19	C
ATOM	8822	NZ	LYS C 287	25.172	113.101	114.155	1.00	30.71	N
ATOM	8826	C	LYS C 287	19.016	115.071	110.802	1.00	24.58	C
ATOM	8827	O	LYS C 287	18.347	115.255	111.820	1.00	24.92	O
ATOM	8828	N	GLN C 288	18.666	115.526	109.601	1.00	24.74	N
ATOM	8830	CA	GLN C 288	17.427	116.262	109.343	1.00	24.96	C
ATOM	8832	CB	GLN C 288	17.668	117.333	108.265	1.00	24.98	C
ATOM	8835	CG	GLN C 288	18.403	118.574	108.803	1.00	27.94	C
ATOM	8838	CD	GLN C 288	19.032	119.438	107.711	1.00	31.20	C
ATOM	8839	OE1	GLN C 288	18.397	120.370	107.199	1.00	34.35	O

123

ATOM	8840	NE2 GLN C 288	20.282	119.139	107.362	1.00	32.82	N
ATOM	8843	C GLN C 288	16.240	115.366	108.946	1.00	24.43	C
ATOM	8844	O GLN C 288	15.141	115.880	108.780	1.00	24.51	O
ATOM	8845	N VAL C 289	16.459	114.057	108.763	1.00	23.60	N
ATOM	8847	CA VAL C 289	15.357	113.121	108.516	1.00	23.06	C
ATOM	8849	CB VAL C 289	15.836	111.779	107.893	1.00	22.95	C
ATOM	8851	CG1 VAL C 289	14.699	110.780	107.756	1.00	21.64	C
ATOM	8855	CG2 VAL C 289	16.447	112.015	106.525	1.00	22.73	C
ATOM	8859	C VAL C 289	14.640	112.873	109.832	1.00	23.03	C
ATOM	8860	O VAL C 289	15.253	112.367	110.771	1.00	23.09	O
ATOM	8861	N PRO C 290	13.375	113.293	109.944	1.00	22.96	N
ATOM	8862	CA PRO C 290	12.570	113.027	111.150	1.00	22.76	C
ATOM	8864	CB PRO C 290	11.154	113.499	110.731	1.00	22.83	C
ATOM	8867	CG PRO C 290	11.430	114.619	109.764	1.00	22.49	C
ATOM	8870	CD PRO C 290	12.621	114.123	108.987	1.00	23.43	C
ATOM	8873	C PRO C 290	12.567	111.554	111.590	1.00	21.65	C
ATOM	8874	O PRO C 290	12.309	110.663	110.788	1.00	21.39	O
ATOM	8875	N GLY C 291	12.882	111.321	112.860	1.00	20.79	N
ATOM	8877	CA GLY C 291	13.035	109.984	113.398	1.00	20.41	C
ATOM	8880	C GLY C 291	14.489	109.614	113.646	1.00	20.14	C
ATOM	8881	O GLY C 291	14.763	108.826	114.547	1.00	20.00	O
ATOM	8882	N PHE C 292	15.414	110.179	112.866	1.00	20.14	N
ATOM	8884	CA PHE C 292	16.824	109.792	112.928	1.00	20.37	C
ATOM	8886	CB PHE C 292	17.650	110.499	111.854	1.00	20.24	C
ATOM	8889	CG PHE C 292	19.063	109.980	111.738	1.00	19.88	C
ATOM	8890	CD1 PHE C 292	19.313	108.730	111.194	1.00	19.73	C
ATOM	8892	CE1 PHE C 292	20.623	108.228	111.082	1.00	20.95	C
ATOM	8894	CZ PHE C 292	21.699	108.993	111.528	1.00	22.41	C
ATOM	8896	CE2 PHE C 292	21.454	110.268	112.078	1.00	22.39	C
ATOM	8898	CD2 PHE C 292	20.139	110.750	112.172	1.00	20.57	C
ATOM	8900	C PHE C 292	17.417	110.088	114.282	1.00	20.65	C
ATOM	8901	O PHE C 292	18.168	109.283	114.829	1.00	20.80	O
ATOM	8902	N LEU C 293	17.072	111.236	114.842	1.00	20.96	N
ATOM	8904	CA LEU C 293	17.651	111.623	116.119	1.00	21.58	C
ATOM	8906	CB LEU C 293	17.866	113.149	116.172	1.00	22.24	C
ATOM	8909	CG LEU C 293	18.982	113.604	115.169	1.00	24.54	C
ATOM	8911	CD1 LEU C 293	18.918	115.091	114.766	1.00	26.29	C
ATOM	8915	CD2 LEU C 293	20.399	113.299	115.679	1.00	25.36	C
ATOM	8919	C LEU C 293	16.890	111.047	117.328	1.00	21.07	C
ATOM	8920	O LEU C 293	17.216	111.353	118.436	1.00	20.52	O
ATOM	8921	N GLN C 294	15.916	110.165	117.076	1.00	21.25	N
ATOM	8923	CA GLN C 294	15.207	109.392	118.107	1.00	21.11	C
ATOM	8925	CB GLN C 294	13.787	108.996	117.617	1.00	20.66	C
ATOM	8928	CG GLN C 294	12.756	110.142	117.485	1.00	20.76	C
ATOM	8931	CD GLN C 294	11.395	109.673	116.957	1.00	20.07	C
ATOM	8932	OE1 GLN C 294	10.885	108.635	117.368	1.00	22.27	O
ATOM	8933	NE2 GLN C 294	10.819	110.435	116.044	1.00	21.53	N
ATOM	8936	C GLN C 294	15.995	108.108	118.460	1.00	21.18	C

124

ATOM	8937	O	GLN	C	294	15.890	107.565	119.573	1.00	21.79	O
ATOM	8938	N	LEU	C	295	16.762	107.618	117.489	1.00	20.56	N
ATOM	8940	CA	LEU	C	295	17.617	106.457	117.676	1.00	19.97	C
ATOM	8942	CB	LEU	C	295	18.184	106.000	116.331	1.00	19.84	C
ATOM	8945	CG	LEU	C	295	17.120	105.608	115.308	1.00	21.51	C
ATOM	8947	CD1	LEU	C	295	17.677	105.567	113.880	1.00	21.63	C
ATOM	8951	CD2	LEU	C	295	16.508	104.280	115.724	1.00	22.38	C
ATOM	8955	C	LEU	C	295	18.776	106.814	118.579	1.00	18.98	C
ATOM	8956	O	LEU	C	295	19.174	107.979	118.657	1.00	18.87	O
ATOM	8957	N	GLY	C	296	19.334	105.794	119.222	1.00	18.24	N
ATOM	8959	CA	GLY	C	296	20.553	105.924	119.992	1.00	17.51	C
ATOM	8962	C	GLY	C	296	21.708	106.223	119.064	1.00	17.28	C
ATOM	8963	O	GLY	C	296	21.676	105.904	117.864	1.00	16.50	O
ATOM	8964	N	ARG	C	297	22.722	106.867	119.610	1.00	17.04	N
ATOM	8966	CA	ARG	C	297	23.866	107.274	118.814	1.00	17.85	C
ATOM	8968	CB	ARG	C	297	24.914	107.939	119.702	1.00	18.51	C
ATOM	8971	CG	ARG	C	297	25.970	108.701	118.932	1.00	21.03	C
ATOM	8974	CD	ARG	C	297	26.565	109.885	119.697	1.00	24.13	C
ATOM	8977	NE	ARG	C	297	27.446	110.642	118.814	1.00	26.89	N
ATOM	8979	CZ	ARG	C	297	28.688	110.280	118.488	1.00	28.95	C
ATOM	8980	NH1	ARG	C	297	29.245	109.170	118.989	1.00	28.90	N
ATOM	8983	NH2	ARG	C	297	29.386	111.044	117.654	1.00	30.13	N
ATOM	8986	C	ARG	C	297	24.500	106.110	118.072	1.00	17.21	C
ATOM	8987	O	ARG	C	297	24.996	106.292	116.970	1.00	17.19	O
ATOM	8988	N	GLU	C	298	24.485	104.927	118.684	1.00	17.07	N
ATOM	8990	CA	GLU	C	298	25.127	103.732	118.118	1.00	17.04	C
ATOM	8992	CB	GLU	C	298	25.210	102.597	119.172	1.00	17.47	C
ATOM	8995	CG	GLU	C	298	26.611	102.225	119.675	1.00	20.19	C
ATOM	8998	CD	GLU	C	298	26.928	102.699	121.098	1.00	24.27	C
ATOM	8999	OE1	GLU	C	298	27.441	101.898	121.941	1.00	26.54	O
ATOM	9000	OE2	GLU	C	298	26.710	103.894	121.377	1.00	26.08	O
ATOM	9001	C	GLU	C	298	24.375	103.269	116.857	1.00	16.16	C
ATOM	9002	O	GLU	C	298	24.988	102.930	115.857	1.00	15.40	O
ATOM	9003	N	ASP	C	299	23.043	103.275	116.903	1.00	15.81	N
ATOM	9005	CA	ASP	C	299	22.237	102.947	115.717	1.00	15.58	C
ATOM	9007	CB	ASP	C	299	20.776	102.702	116.079	1.00	15.51	C
ATOM	9010	CG	ASP	C	299	20.580	101.419	116.853	1.00	17.40	C
ATOM	9011	OD1	ASP	C	299	21.597	100.704	117.109	1.00	17.79	O
ATOM	9012	OD2	ASP	C	299	19.440	101.049	117.244	1.00	18.34	O
ATOM	9013	C	ASP	C	299	22.323	104.014	114.631	1.00	14.43	C
ATOM	9014	O	ASP	C	299	22.216	103.687	113.475	1.00	14.52	O
ATOM	9015	N	GLN	C	300	22.528	105.270	115.010	1.00	13.51	N
ATOM	9017	CA	GLN	C	300	22.701	106.360	114.061	1.00	13.20	C
ATOM	9019	CB	GLN	C	300	22.832	107.720	114.787	1.00	13.53	C
ATOM	9022	CG	GLN	C	300	21.478	108.370	115.142	1.00	14.58	C
ATOM	9025	CD	GLN	C	300	21.589	109.678	115.924	1.00	16.44	C
ATOM	9026	OE1	GLN	C	300	22.618	110.348	115.897	1.00	18.72	O
ATOM	9027	NE2	GLN	C	300	20.521	110.036	116.625	1.00	18.19	N

125

ATOM 9030 C GLN C 300	23.941 106.081 113.219 1.00 12.90	C
ATOM 9031 O GLN C 300	23.890 106.120 111.982 1.00 12.11	O
ATOM 9032 N ILE C 301	25.042 105.771 113.907 1.00 12.62	N
ATOM 9034 CA ILE C 301	26.318 105.476 113.264 1.00 12.44	C
ATOM 9036 CB ILE C 301	27.455 105.338 114.313 1.00 12.75	C
ATOM 9038 CG1 ILE C 301	27.860 106.724 114.830 1.00 13.07	C
ATOM 9041 CD1 ILE C 301	28.710 106.675 116.118 1.00 13.04	C
ATOM 9045 CG2 ILE C 301	28.698 104.619 113.728 1.00 12.96	C
ATOM 9049 C ILE C 301	26.210 104.240 112.389 1.00 12.02	C
ATOM 9050 O ILE C 301	26.632 104.279 111.247 1.00 12.15	O
ATOM 9051 N ALA C 302	25.607 103.172 112.897 1.00 11.82	N
ATOM 9053 CA ALA C 302	25.437 101.932 112.124 1.00 12.16	C
ATOM 9055 CB ALA C 302	24.883 100.831 113.008 1.00 12.16	C
ATOM 9059 C ALA C 302	24.542 102.103 110.887 1.00 12.54	C
ATOM 9060 O ALA C 302	24.791 101.527 109.835 1.00 12.70	O
ATOM 9061 N LEU C 303	23.498 102.896 111.009 1.00 13.13	N
ATOM 9063 CA LEU C 303	22.589 103.099 109.891 1.00 13.77	C
ATOM 9065 CB LEU C 303	21.304 103.819 110.334 1.00 14.12	C
ATOM 9068 CG LEU C 303	20.322 102.935 111.135 1.00 15.21	C
ATOM 9070 CD1 LEU C 303	19.016 103.660 111.413 1.00 14.75	C
ATOM 9074 CD2 LEU C 303	20.057 101.608 110.416 1.00 15.95	C
ATOM 9078 C LEU C 303	23.306 103.860 108.794 1.00 13.54	C
ATOM 9079 O LEU C 303	23.239 103.469 107.649 1.00 12.29	O
ATOM 9080 N LEU C 304	24.036 104.903 109.171 1.00 14.20	N
ATOM 9082 CA LEU C 304	24.788 105.725 108.220 1.00 15.18	C
ATOM 9084 CB LEU C 304	25.385 106.950 108.907 1.00 15.36	C
ATOM 9087 CG LEU C 304	24.481 108.164 109.057 1.00 15.79	C
ATOM 9089 CD1 LEU C 304	25.251 109.220 109.808 1.00 17.72	C
ATOM 9093 CD2 LEU C 304	23.994 108.696 107.718 1.00 15.50	C
ATOM 9097 C LEU C 304	25.913 104.983 107.527 1.00 15.76	C
ATOM 9098 O LEU C 304	26.124 105.161 106.347 1.00 16.32	O
ATOM 9099 N LYS C 305	26.631 104.161 108.276 1.00 16.60	N
ATOM 9101 CA LYS C 305	27.737 103.358 107.751 1.00 16.99	C
ATOM 9103 CB LYS C 305	28.447 102.638 108.909 1.00 16.84	C
ATOM 9106 CG LYS C 305	29.930 102.380 108.702 1.00 17.61	C
ATOM 9109 CD LYS C 305	30.525 101.476 109.823 1.00 17.48	C
ATOM 9112 CE LYS C 305	31.043 100.146 109.246 1.00 18.13	C
ATOM 9115 NZ LYS C 305	31.784 99.317 110.254 1.00 17.66	N
ATOM 9119 C LYS C 305	27.267 102.343 106.691 1.00 17.22	C
ATOM 9120 O LYS C 305	27.893 102.188 105.641 1.00 17.91	O
ATOM 9121 N ALA C 306	26.163 101.659 106.952 1.00 17.29	N
ATOM 9123 CA ALA C 306	25.659 100.665 106.005 1.00 17.55	C
ATOM 9125 CB ALA C 306	24.718 99.703 106.705 1.00 17.28	C
ATOM 9129 C ALA C 306	24.949 101.325 104.820 1.00 17.94	C
ATOM 9130 O ALA C 306	24.726 100.695 103.794 1.00 18.97	O
ATOM 9131 N SER C 307	24.617 102.595 104.962 1.00 17.58	N
ATOM 9133 CA SER C 307	23.710 103.250 104.054 1.00 17.92	C
ATOM 9135 CB SER C 307	22.611 103.921 104.866 1.00 17.61	C

ATOM	9138	OG	SER C 307	21.768	104.633	104.024	1.00	20.18	O
ATOM	9140	C	SER C 307	24.360	104.304	103.183	1.00	17.67	C
ATOM	9141	O	SER C 307	23.809	104.652	102.137	1.00	17.60	O
ATOM	9142	N	THR C 308	25.506	104.825	103.618	1.00	17.29	N
ATOM	9144	CA	THR C 308	26.125	105.959	102.965	1.00	17.23	C
ATOM	9146	CB	THR C 308	27.434	106.362	103.702	1.00	17.35	C
ATOM	9148	OG1	THR C 308	27.109	107.106	104.891	1.00	17.54	O
ATOM	9150	CG2	THR C 308	28.291	107.348	102.868	1.00	17.21	C
ATOM	9154	C	THR C 308	26.372	105.642	101.482	1.00	17.56	C
ATOM	9155	O	THR C 308	26.035	106.446	100.611	1.00	17.67	O
ATOM	9156	N	ILE C 309	26.923	104.467	101.198	1.00	17.29	N
ATOM	9158	CA	ILE C 309	27.253	104.119	99.821	1.00	17.69	C
ATOM	9160	CB	ILE C 309	28.162	102.861	99.742	1.00	17.33	C
ATOM	9162	CG1	ILE C 309	28.721	102.688	98.331	1.00	17.70	C
ATOM	9165	CD1	ILE C 309	29.720	103.754	97.938	1.00	18.00	C
ATOM	9169	CG2	ILE C 309	27.410	101.612	100.150	1.00	17.46	C
ATOM	9173	C	ILE C 309	25.988	103.953	98.987	1.00	17.79	C
ATOM	9174	O	ILE C 309	25.950	104.360	97.835	1.00	18.04	O
ATOM	9175	N	GLU C 310	24.951	103.376	99.581	1.00	17.94	N
ATOM	9177	CA	GLU C 310	23.710	103.120	98.859	1.00	17.79	C
ATOM	9179	CB	GLU C 310	22.748	102.262	99.693	1.00	18.15	C
ATOM	9182	CG	GLU C 310	23.042	100.776	99.576	1.00	19.42	C
ATOM	9185	CD	GLU C 310	22.258	99.903	100.554	1.00	21.85	C
ATOM	9186	OE1	GLU C 310	21.036	100.097	100.753	1.00	23.35	O
ATOM	9187	OE2	GLU C 310	22.877	98.978	101.108	1.00	23.35	O
ATOM	9188	C	GLU C 310	23.050	104.419	98.471	1.00	17.12	C
ATOM	9189	O	GLU C 310	22.480	104.525	97.397	1.00	16.96	O
ATOM	9190	N	ILE C 311	23.129	105.404	99.358	1.00	16.43	N
ATOM	9192	CA	ILE C 311	22.578	106.728	99.094	1.00	15.75	C
ATOM	9194	CB	ILE C 311	22.456	107.529	100.423	1.00	15.35	C
ATOM	9196	CG1	ILE C 311	21.415	106.873	101.335	1.00	16.03	C
ATOM	9199	CD1	ILE C 311	21.551	107.259	102.769	1.00	16.89	C
ATOM	9203	CG2	ILE C 311	22.061	108.947	100.163	1.00	14.17	C
ATOM	9207	C	ILE C 311	23.399	107.492	98.040	1.00	15.16	C
ATOM	9208	O	ILE C 311	22.859	108.298	97.303	1.00	14.74	O
ATOM	9209	N	MET C 312	24.699	107.229	97.985	1.00	15.30	N
ATOM	9211	CA	MET C 312	25.610	107.877	97.031	1.00	15.36	C
ATOM	9213	CB	MET C 312	27.070	107.524	97.347	1.00	15.73	C
ATOM	9216	CG	MET C 312	27.768	108.490	98.286	1.00	16.56	C
ATOM	9219	SD	MET C 312	29.474	107.991	98.640	1.00	20.13	S
ATOM	9220	CE	MET C 312	30.310	108.784	97.288	1.00	17.77	C
ATOM	9224	C	MET C 312	25.278	107.471	95.596	1.00	14.87	C
ATOM	9225	O	MET C 312	25.300	108.307	94.702	1.00	14.39	O
ATOM	9226	N	LEU C 313	24.952	106.193	95.419	1.00	14.90	N
ATOM	9228	CA	LEU C 313	24.505	105.629	94.154	1.00	15.60	C
ATOM	9230	CB	LEU C 313	24.507	104.098	94.240	1.00	15.52	C
ATOM	9233	CG	LEU C 313	25.902	103.473	94.345	1.00	17.07	C
ATOM	9235	CD1	LEU C 313	25.806	101.985	94.642	1.00	17.63	C

ATOM	9239	CD2 LEU C 313	26.747	103.716	93.058	1.00	16.98	C
ATOM	9243	C LEU C 313	23.114	106.109	93.734	1.00	15.79	C
ATOM	9244	O LEU C 313	22.864	106.313	92.550	1.00	15.46	O
ATOM	9245	N LEU C 314	22.204	106.255	94.691	1.00	16.14	N
ATOM	9247	CA LEU C 314	20.868	106.790	94.405	1.00	16.84	C
ATOM	9249	CB LEU C 314	19.988	106.744	95.646	1.00	17.11	C
ATOM	9252	CG LEU C 314	18.631	106.002	95.673	1.00	18.67	C
ATOM	9254	CD1 LEU C 314	18.454	104.919	94.622	1.00	19.10	C
ATOM	9258	CD2 LEU C 314	18.413	105.431	97.060	1.00	18.21	C
ATOM	9262	C LEU C 314	21.008	108.233	93.930	1.00	17.27	C
ATOM	9263	O LEU C 314	20.398	108.652	92.947	1.00	16.54	O
ATOM	9264	N GLU C 315	21.849	108.984	94.625	1.00	18.07	N
ATOM	9266	CA GLU C 315	22.054	110.384	94.302	1.00	18.87	C
ATOM	9268	CB GLU C 315	22.813	111.098	95.425	1.00	19.21	C
ATOM	9271	CG GLU C 315	21.916	111.532	96.579	1.00	21.88	C
ATOM	9274	CD GLU C 315	20.858	112.565	96.165	1.00	24.16	C
ATOM	9275	OE1 GLU C 315	21.225	113.574	95.497	1.00	21.62	O
ATOM	9276	OE2 GLU C 315	19.663	112.350	96.523	1.00	26.27	O
ATOM	9277	C GLU C 315	22.791	110.539	92.983	1.00	18.54	C
ATOM	9278	O GLU C 315	22.670	111.569	92.332	1.00	18.60	O
ATOM	9279	N THR C 316	23.551	109.518	92.601	1.00	18.27	N
ATOM	9281	CA THR C 316	24.222	109.492	91.303	1.00	18.13	C
ATOM	9283	CB THR C 316	25.325	108.403	91.293	1.00	18.21	C
ATOM	9285	OG1 THR C 316	26.248	108.631	92.366	1.00	17.85	O
ATOM	9287	CG2 THR C 316	26.194	108.503	90.056	1.00	17.93	C
ATOM	9291	C THR C 316	23.207	109.252	90.182	1.00	17.91	C
ATOM	9292	O THR C 316	23.266	109.901	89.151	1.00	17.49	O
ATOM	9293	N ALA C 317	22.273	108.334	90.409	1.00	18.09	N
ATOM	9295	CA ALA C 317	21.209	108.043	89.455	1.00	18.68	C
ATOM	9297	CB ALA C 317	20.323	106.940	89.984	1.00	18.51	C
ATOM	9301	C ALA C 317	20.376	109.281	89.184	1.00	19.16	C
ATOM	9302	O ALA C 317	20.025	109.573	88.041	1.00	19.81	O
ATOM	9303	N ARG C 318	20.089	109.999	90.259	1.00	19.76	N
ATOM	9305	CA ARG C 318	19.295	111.223	90.255	1.00	20.42	C
ATOM	9307	CB ARG C 318	19.186	111.748	91.700	1.00	20.76	C
ATOM	9310	CG ARG C 318	18.008	112.671	91.970	1.00	22.67	C
ATOM	9313	CD ARG C 318	17.778	112.996	93.461	1.00	25.30	C
ATOM	9316	NE ARG C 318	17.341	114.383	93.585	1.00	28.53	N
ATOM	9318	CZ ARG C 318	18.118	115.416	93.905	1.00	31.39	C
ATOM	9319	NH1 ARG C 318	19.402	115.254	94.208	1.00	32.11	N
ATOM	9322	NH2 ARG C 318	17.592	116.637	93.944	1.00	33.77	N
ATOM	9325	C ARG C 318	19.867	112.314	89.344	1.00	20.16	C
ATOM	9326	O ARG C 318	19.115	113.096	88.762	1.00	19.94	O
ATOM	9327	N ARG C 319	21.196	112.350	89.231	1.00	20.23	N
ATOM	9329	CA ARG C 319	21.914	113.378	88.481	1.00	20.06	C
ATOM	9331	CB ARG C 319	23.107	113.855	89.296	1.00	20.26	C
ATOM	9334	CG ARG C 319	22.759	114.309	90.693	1.00	20.52	C
ATOM	9337	CD ARG C 319	23.907	114.217	91.677	1.00	21.72	C

128

ATOM	9340	NE	ARG C 319	23.590	114.904	92.926	1.00	22.55	N
ATOM	9342	CZ	ARG C 319	24.210	115.987	93.380	1.00	23.92	C
ATOM	9343	NH1	ARG C 319	25.215	116.541	92.715	1.00	24.46	N
ATOM	9346	NH2	ARG C 319	23.821	116.524	94.526	1.00	27.00	N
ATOM	9349	C	ARG C 319	22.418	112.867	87.145	1.00	19.89	C
ATOM	9350	O	ARG C 319	23.149	113.567	86.433	1.00	20.03	O
ATOM	9351	N	TYR C 320	22.037	111.642	86.810	1.00	19.62	N
ATOM	9353	CA	TYR C 320	22.320	111.076	85.504	1.00	19.68	C
ATOM	9355	CB	TYR C 320	22.233	109.552	85.567	1.00	19.69	C
ATOM	9358	CG	TYR C 320	22.370	108.864	84.234	1.00	19.58	C
ATOM	9359	CD1	TYR C 320	23.619	108.618	83.689	1.00	19.48	C
ATOM	9361	CE1	TYR C 320	23.752	107.980	82.469	1.00	20.36	C
ATOM	9363	CZ	TYR C 320	22.622	107.569	81.780	1.00	20.53	C
ATOM	9364	OH	TYR C 320	22.766	106.938	80.565	1.00	21.22	O
ATOM	9366	CE2	TYR C 320	21.364	107.799	82.310	1.00	20.30	C
ATOM	9368	CD2	TYR C 320	21.247	108.444	83.530	1.00	19.79	C
ATOM	9370	C	TYR C 320	21.314	111.626	84.498	1.00	19.59	C
ATOM	9371	O	TYR C 320	20.112	111.379	84.597	1.00	19.48	O
ATOM	9372	N	ASN C 321	21.815	112.392	83.545	1.00	19.68	N
ATOM	9374	CA	ASN C 321	20.994	112.914	82.467	1.00	20.13	C
ATOM	9376	CB	ASN C 321	21.498	114.318	82.075	1.00	20.08	C
ATOM	9379	CG	ASN C 321	20.898	114.833	80.780	1.00	19.57	C
ATOM	9380	OD1	ASN C 321	19.709	115.125	80.693	1.00	19.18	O
ATOM	9381	ND2	ASN C 321	21.729	114.961	79.773	1.00	19.05	N
ATOM	9384	C	ASN C 321	21.097	111.899	81.331	1.00	20.57	C
ATOM	9385	O	ASN C 321	22.182	111.673	80.800	1.00	20.58	O
ATOM	9386	N	HIS C 322	19.991	111.246	80.988	1.00	21.24	N
ATOM	9388	CA	HIS C 322	20.062	110.134	80.036	1.00	22.18	C
ATOM	9390	CB	HIS C 322	18.906	109.134	80.230	1.00	22.76	C
ATOM	9393	CG	HIS C 322	19.082	107.859	79.450	1.00	24.65	C
ATOM	9394	ND1	HIS C 322	20.283	107.180	79.393	1.00	26.22	N
ATOM	9396	CE1	HIS C 322	20.153	106.117	78.619	1.00	26.44	C
ATOM	9398	NE2	HIS C 322	18.914	106.083	78.165	1.00	26.75	N
ATOM	9400	CD2	HIS C 322	18.223	107.163	78.666	1.00	25.69	C
ATOM	9402	C	HIS C 322	20.157	110.567	78.564	1.00	21.92	C
ATOM	9403	O	HIS C 322	20.459	109.737	77.708	1.00	21.93	O
ATOM	9404	N	GLU C 323	19.920	111.848	78.275	1.00	21.88	N
ATOM	9406	CA	GLU C 323	20.111	112.377	76.920	1.00	21.96	C
ATOM	9408	CB	GLU C 323	19.542	113.791	76.792	1.00	22.16	C
ATOM	9411	CG	GLU C 323	18.038	113.911	76.989	1.00	22.94	C
ATOM	9414	CD	GLU C 323	17.628	115.303	77.441	1.00	24.39	C
ATOM	9415	OE1	GLU C 323	17.567	115.537	78.673	1.00	25.93	O
ATOM	9416	OE2	GLU C 323	17.373	116.165	76.564	1.00	24.78	O
ATOM	9417	C	GLU C 323	21.590	112.405	76.530	1.00	21.66	C
ATOM	9418	O	GLU C 323	21.941	112.094	75.392	1.00	21.39	O
ATOM	9419	N	THR C 324	22.450	112.771	77.483	1.00	21.55	N
ATOM	9421	CA	THR C 324	23.888	112.926	77.222	1.00	21.44	C
ATOM	9423	CB	THR C 324	24.458	114.149	77.996	1.00	21.46	C

129

ATOM	9425	OG1 THR C 324	24.155	114.039	79.395	1.00	21.39	O
ATOM	9427	CG2 THR C 324	23.788	115.458	77.562	1.00	21.27	C
ATOM	9431	C THR C 324	24.681	111.676	77.606	1.00	21.34	C
ATOM	9432	O THR C 324	25.782	111.411	77.016	1.00	21.11	O
ATOM	9433	N GLU C 325	24.103	110.903	78.554	1.00	21.19	N
ATOM	9435	CA GLU C 325	24.776	109.764	79.197	1.00	21.16	C
ATOM	9437	CB GLU C 325	25.119	108.669	78.158	1.00	21.14	C
ATOM	9440	CG GLU C 325	24.070	108.514	77.053	1.00	20.93	C
ATOM	9443	CD GLU C 325	24.344	107.353	76.119	1.00	20.84	C
ATOM	9444	OE1 GLU C 325	24.703	107.598	74.945	1.00	21.88	O
ATOM	9445	OE2 GLU C 325	24.187	106.197	76.549	1.00	21.05	O
ATOM	9446	C GLU C 325	26.036	110.269	79.970	1.00	21.06	C
ATOM	9447	O GLU C 325	27.224	109.694	79.857	1.00	21.38	O
ATOM	9448	N CYS C 326	25.708	111.351	80.773	1.00	20.97	N
ATOM	9450	CA CYS C 326	26.638	112.032	81.698	1.00	20.62	C
ATOM	9452	CB CYS C 326	27.039	113.380	81.119	1.00	20.62	C
ATOM	9455	SG CYS C 326	28.207	113.283	79.778	1.00	21.03	S
ATOM	9456	C CYS C 326	26.026	112.336	83.057	1.00	20.08	C
ATOM	9457	O CYS C 326	24.871	112.744	83.144	1.00	19.85	O
ATOM	9458	N ILE C 327	26.835	112.188	84.104	1.00	19.97	N
ATOM	9460	CA ILE C 327	26.443	112.495	85.478	1.00	19.57	C
ATOM	9462	CB ILE C 327	27.039	111.441	86.438	1.00	19.77	C
ATOM	9464	CG1 ILE C 327	26.508	110.036	86.107	1.00	19.43	C
ATOM	9467	CD1 ILE C 327	27.416	108.924	86.561	1.00	18.68	C
ATOM	9471	CG2 ILE C 327	26.765	111.821	87.922	1.00	19.37	C
ATOM	9475	C ILE C 327	26.990	113.869	85.852	1.00	19.48	C
ATOM	9476	O ILE C 327	28.184	114.129	85.672	1.00	19.10	O
ATOM	9477	N THR C 328	26.135	114.739	86.383	1.00	19.40	N
ATOM	9479	CA THR C 328	26.593	116.023	86.908	1.00	19.52	C
ATOM	9481	CB THR C 328	25.653	117.175	86.477	1.00	19.52	C
ATOM	9483	OG1 THR C 328	25.854	117.485	85.092	1.00	19.32	O
ATOM	9485	CG2 THR C 328	26.014	118.488	87.177	1.00	19.86	C
ATOM	9489	C THR C 328	26.711	115.954	88.436	1.00	19.67	C
ATOM	9490	O THR C 328	25.769	115.566	89.123	1.00	19.59	O
ATOM	9491	N PHE C 329	27.891	116.292	88.950	1.00	19.88	N
ATOM	9493	CA PHE C 329	28.098	116.475	90.379	1.00	19.94	C
ATOM	9495	CB PHE C 329	29.397	115.806	90.819	1.00	19.76	C
ATOM	9498	CG PHE C 329	29.383	114.313	90.717	1.00	18.14	C
ATOM	9499	CD1 PHE C 329	30.363	113.649	89.997	1.00	16.96	C
ATOM	9501	CE1 PHE C 329	30.365	112.273	89.906	1.00	16.32	C
ATOM	9503	CZ PHE C 329	29.394	111.547	90.530	1.00	16.17	C
ATOM	9505	CE2 PHE C 329	28.409	112.194	91.261	1.00	16.95	C
ATOM	9507	CD2 PHE C 329	28.410	113.574	91.351	1.00	16.75	C
ATOM	9509	C PHE C 329	28.152	117.961	90.744	1.00	20.54	C
ATOM	9510	O PHE C 329	28.429	118.823	89.898	1.00	20.45	O
ATOM	9511	N LEU C 330	27.919	118.237	92.025	1.00	21.19	N
ATOM	9513	CA LEU C 330	27.909	119.601	92.551	1.00	21.69	C
ATOM	9515	CB LEU C 330	29.313	120.228	92.474	1.00	21.81	C

ATOM	9518	CG LEU C 330	30.423	119.461	93.203	1.00	22.11	C
ATOM	9520	CD1 LEU C 330	31.743	120.211	93.078	1.00	22.18	C
ATOM	9524	CD2 LEU C 330	30.072	119.207	94.672	1.00	22.18	C
ATOM	9528	C LEU C 330	26.844	120.444	91.840	1.00	21.87	C
ATOM	9529	O LEU C 330	25.654	120.194	92.023	1.00	22.10	O
ATOM	9530	N LYS C 331	27.261	121.424	91.044	1.00	22.12	N
ATOM	9532	CA LYS C 331	26.334	122.295	90.322	1.00	22.48	C
ATOM	9534	CB LYS C 331	26.458	123.749	90.834	1.00	22.55	C
ATOM	9537	CG LYS C 331	26.826	124.834	89.803	1.00	22.78	C
ATOM	9540	CD LYS C 331	26.989	126.218	90.460	1.00	23.07	C
ATOM	9543	CE LYS C 331	28.382	126.811	90.254	1.00	23.08	C
ATOM	9546	NZ LYS C 331	28.572	127.396	88.894	1.00	23.45	N
ATOM	9550	C LYS C 331	26.541	122.200	88.808	1.00	22.62	C
ATOM	9551	O LYS C 331	25.567	122.128	88.063	1.00	22.83	O
ATOM	9552	N ASP C 332	27.799	122.180	88.366	1.00	22.77	N
ATOM	9554	CA ASP C 332	28.136	122.276	86.943	1.00	22.91	C
ATOM	9556	CB ASP C 332	28.802	123.631	86.668	1.00	22.95	C
ATOM	9559	CG ASP C 332	27.814	124.690	86.214	1.00	23.26	C
ATOM	9560	OD1 ASP C 332	26.648	124.671	86.676	1.00	25.08	O
ATOM	9561	OD2 ASP C 332	28.117	125.586	85.405	1.00	21.44	O
ATOM	9562	C ASP C 332	29.052	121.178	86.409	1.00	22.95	C
ATOM	9563	O ASP C 332	29.148	121.017	85.196	1.00	23.16	O
ATOM	9564	N PHE C 333	29.738	120.441	87.280	1.00	23.00	N
ATOM	9566	CA PHE C 333	30.737	119.471	86.822	1.00	22.97	C
ATOM	9568	CB PHE C 333	31.664	119.047	87.969	1.00	23.05	C
ATOM	9571	CG PHE C 333	32.486	120.174	88.566	1.00	23.21	C
ATOM	9572	CD1 PHE C 333	32.605	121.412	87.940	1.00	23.89	C
ATOM	9574	CE1 PHE C 333	33.371	122.429	88.504	1.00	23.79	C
ATOM	9576	CZ PHE C 333	34.024	122.218	89.701	1.00	23.41	C
ATOM	9578	CE2 PHE C 333	33.916	120.996	90.334	1.00	23.59	C
ATOM	9580	CD2 PHE C 333	33.151	119.981	89.768	1.00	23.64	C
ATOM	9582	C PHE C 333	30.054	118.243	86.224	1.00	22.95	C
ATOM	9583	O PHE C 333	29.189	117.651	86.859	1.00	23.10	O
ATOM	9584	N THR C 334	30.448	117.876	85.004	1.00	22.92	N
ATOM	9586	CA THR C 334	29.836	116.767	84.263	1.00	22.91	C
ATOM	9588	CB THR C 334	29.052	117.321	83.039	1.00	22.95	C
ATOM	9590	OG1 THR C 334	27.653	117.052	83.200	1.00	23.46	O
ATOM	9592	CG2 THR C 334	29.402	116.617	81.733	1.00	23.14	C
ATOM	9596	C THR C 334	30.887	115.738	83.846	1.00	22.78	C
ATOM	9597	O THR C 334	32.030	116.093	83.563	1.00	22.83	O
ATOM	9598	N TYR C 335	30.483	114.467	83.798	1.00	22.76	N
ATOM	9600	CA TYR C 335	31.402	113.357	83.552	1.00	22.83	C
ATOM	9602	CB TYR C 335	31.949	112.809	84.865	1.00	22.65	C
ATOM	9605	CG TYR C 335	32.588	113.866	85.718	1.00	22.97	C
ATOM	9606	CD1 TYR C 335	31.911	114.398	86.810	1.00	23.06	C
ATOM	9608	CE1 TYR C 335	32.478	115.376	87.594	1.00	23.22	C
ATOM	9610	CZ TYR C 335	33.735	115.843	87.302	1.00	23.50	C
ATOM	9611	OH TYR C 335	34.268	116.818	88.104	1.00	24.32	O

ATOM	9613	CE2 TYR C 335	34.438	115.344	86.213	1.00	23.60	C
ATOM	9615	CD2 TYR C 335	33.858	114.357	85.424	1.00	23.11	C
ATOM	9617	C TYR C 335	30.753	112.217	82.773	1.00	22.97	C
ATOM	9618	O TYR C 335	29.795	111.596	83.236	1.00	22.91	O
ATOM	9619	N SER C 336	31.304	111.941	81.595	1.00	23.13	N
ATOM	9621	CA SER C 336	30.833	110.847	80.753	1.00	23.28	C
ATOM	9623	CB SER C 336	31.437	110.981	79.345	1.00	23.02	C
ATOM	9626	OG SER C 336	32.805	111.348	79.429	1.00	23.21	O
ATOM	9628	C SER C 336	31.196	109.478	81.359	1.00	23.45	C
ATOM	9629	O SER C 336	31.956	109.388	82.336	1.00	23.19	O
ATOM	9630	N LYS C 337	30.637	108.423	80.760	1.00	23.74	N
ATOM	9632	CA LYS C 337	31.026	107.034	81.040	1.00	23.61	C
ATOM	9634	CB LYS C 337	30.441	106.083	79.979	1.00	23.79	C
ATOM	9637	CG LYS C 337	29.359	105.144	80.487	1.00	24.13	C
ATOM	9640	CD LYS C 337	29.345	103.817	79.703	1.00	24.63	C
ATOM	9643	CE LYS C 337	28.100	102.979	80.036	1.00	25.18	C
ATOM	9646	NZ LYS C 337	27.208	102.758	78.848	1.00	24.94	N
ATOM	9650	C LYS C 337	32.543	106.862	81.036	1.00	23.58	C
ATOM	9651	O LYS C 337	33.095	106.269	81.966	1.00	23.45	O
ATOM	9652	N ASP C 338	33.195	107.376	79.984	1.00	23.31	N
ATOM	9654	CA ASP C 338	34.643	107.216	79.791	1.00	23.46	C
ATOM	9656	CB ASP C 338	35.028	107.408	78.310	1.00	23.48	C
ATOM	9659	CG ASP C 338	34.563	106.254	77.431	1.00	23.50	C
ATOM	9660	OD1 ASP C 338	35.353	105.798	76.567	1.00	23.44	O
ATOM	9661	OD2 ASP C 338	33.425	105.740	77.531	1.00	23.90	O
ATOM	9662	C ASP C 338	35.490	108.156	80.658	1.00	23.45	C
ATOM	9663	O ASP C 338	36.650	107.852	80.933	1.00	23.52	O
ATOM	9664	N ASP C 339	34.929	109.297	81.064	1.00	23.40	N
ATOM	9666	CA ASP C 339	35.602	110.193	82.014	1.00	23.46	C
ATOM	9668	CB ASP C 339	34.784	111.473	82.260	1.00	23.37	C
ATOM	9671	CG ASP C 339	35.130	112.612	81.294	1.00	23.23	C
ATOM	9672	OD1 ASP C 339	36.252	112.652	80.734	1.00	22.17	O
ATOM	9673	OD2 ASP C 339	34.322	113.536	81.054	1.00	22.90	O
ATOM	9674	C ASP C 339	35.854	109.473	83.350	1.00	23.65	C
ATOM	9675	O ASP C 339	36.789	109.823	84.083	1.00	23.64	O
ATOM	9676	N PHE C 340	35.010	108.483	83.663	1.00	23.87	N
ATOM	9678	CA PHE C 340	35.214	107.611	84.826	1.00	24.06	C
ATOM	9680	CB PHE C 340	33.959	106.770	85.115	1.00	24.12	C
ATOM	9683	CG PHE C 340	32.889	107.498	85.895	1.00	24.96	C
ATOM	9684	CD1 PHE C 340	32.208	108.569	85.336	1.00	25.77	C
ATOM	9686	CE1 PHE C 340	31.219	109.238	86.043	1.00	26.02	C
ATOM	9688	CZ PHE C 340	30.895	108.832	87.325	1.00	26.79	C
ATOM	9690	CE2 PHE C 340	31.558	107.754	87.898	1.00	26.79	C
ATOM	9692	CD2 PHE C 340	32.549	107.095	87.184	1.00	25.85	C
ATOM	9694	C PHE C 340	36.405	106.676	84.595	1.00	23.95	C
ATOM	9695	O PHE C 340	37.273	106.540	85.461	1.00	23.70	O
ATOM	9696	N HIS C 341	36.443	106.031	83.428	1.00	24.03	N
ATOM	9698	CA HIS C 341	37.529	105.098	83.113	1.00	24.10	C

ATOM	9700	CB	HIS C 341	37.295	104.356	81.795	1.00	23.79	C
ATOM	9703	CG	HIS C 341	38.254	103.225	81.578	1.00	23.96	C
ATOM	9704	ND1	HIS C 341	38.295	102.118	82.399	1.00	23.93	N
ATOM	9706	CE1	HIS C 341	39.245	101.298	81.982	1.00	23.56	C
ATOM	9708	NE2	HIS C 341	39.828	101.837	80.927	1.00	23.39	N
ATOM	9710	CD2	HIS C 341	39.233	103.046	80.657	1.00	23.74	C
ATOM	9712	C	HIS C 341	38.890	105.781	83.078	1.00	24.20	C
ATOM	9713	O	HIS C 341	39.891	105.167	83.442	1.00	24.22	O
ATOM	9714	N	ARG C 342	38.917	107.050	82.665	1.00	24.50	N
ATOM	9716	CA	ARG C 342	40.166	107.816	82.544	1.00	24.78	C
ATOM	9718	CB	ARG C 342	39.954	109.101	81.726	1.00	24.75	C
ATOM	9721	CG	ARG C 342	39.982	108.917	80.211	1.00	24.30	C
ATOM	9724	CD	ARG C 342	39.065	109.885	79.471	1.00	23.88	C
ATOM	9727	NE	ARG C 342	39.099	109.706	78.021	1.00	23.45	N
ATOM	9729	CZ	ARG C 342	38.260	110.288	77.164	1.00	23.05	C
ATOM	9730	NH1	ARG C 342	37.302	111.102	77.594	1.00	22.76	N
ATOM	9733	NH2	ARG C 342	38.383	110.057	75.862	1.00	23.21	N
ATOM	9736	C	ARG C 342	40.753	108.175	83.910	1.00	25.03	C
ATOM	9737	O	ARG C 342	41.938	108.496	84.014	1.00	25.19	O
ATOM	9738	N	ALA C 343	39.917	108.130	84.944	1.00	25.28	N
ATOM	9740	CA	ALA C 343	40.357	108.321	86.320	1.00	25.56	C
ATOM	9742	CB	ALA C 343	39.257	109.015	87.120	1.00	25.51	C
ATOM	9746	C	ALA C 343	40.747	106.999	86.993	1.00	25.82	C
ATOM	9747	O	ALA C 343	40.608	106.857	88.212	1.00	26.03	O
ATOM	9748	N	GLY C 344	41.221	106.037	86.201	1.00	26.08	N
ATOM	9750	CA	GLY C 344	41.775	104.797	86.716	1.00	26.38	C
ATOM	9753	C	GLY C 344	40.829	103.917	87.507	1.00	26.78	C
ATOM	9754	O	GLY C 344	41.222	103.369	88.538	1.00	26.80	O
ATOM	9755	N	LEU C 345	39.592	103.773	87.031	1.00	27.25	N
ATOM	9757	CA	LEU C 345	38.594	102.943	87.714	1.00	27.42	C
ATOM	9759	CB	LEU C 345	37.308	103.747	87.978	1.00	27.41	C
ATOM	9762	CG	LEU C 345	37.328	104.711	89.177	1.00	26.98	C
ATOM	9764	CD1	LEU C 345	36.274	105.799	89.030	1.00	26.10	C
ATOM	9768	CD2	LEU C 345	37.140	103.971	90.492	1.00	26.81	C
ATOM	9772	C	LEU C 345	38.284	101.657	86.926	1.00	27.76	C
ATOM	9773	O	LEU C 345	38.452	101.599	85.698	1.00	27.59	O
ATOM	9774	N	GLN C 346	37.837	100.634	87.658	1.00	28.16	N
ATOM	9776	CA	GLN C 346	37.475	99.338	87.079	1.00	28.44	C
ATOM	9778	CB	GLN C 346	37.215	98.310	88.194	1.00	28.43	C
ATOM	9781	CG	GLN C 346	38.477	97.832	88.925	1.00	28.46	C
ATOM	9784	CD	GLN C 346	38.727	96.329	88.789	1.00	28.15	C
ATOM	9785	OE1	GLN C 346	39.805	95.913	88.365	1.00	27.00	O
ATOM	9786	NE2	GLN C 346	37.737	95.520	89.162	1.00	28.11	N
ATOM	9789	C	GLN C 346	36.231	99.444	86.191	1.00	28.67	C
ATOM	9790	O	GLN C 346	35.299	100.192	86.515	1.00	28.63	O
ATOM	9791	N	VAL C 347	36.219	98.682	85.092	1.00	28.72	N
ATOM	9793	CA	VAL C 347	35.083	98.646	84.158	1.00	28.88	C
ATOM	9795	CB	VAL C 347	35.492	98.051	82.777	1.00	29.00	C

ATOM	9797	CG1 VAL C 347	34.313	98.048	81.802	1.00	29.19	C
ATOM	9801	CG2 VAL C 347	36.670	98.827	82.176	1.00	29.10	C
ATOM	9805	C VAL C 347	33.877	97.867	84.727	1.00	28.99	C
ATOM	9806	O VAL C 347	32.736	98.129	84.343	1.00	29.22	O
ATOM	9807	N GLU C 348	34.130	96.934	85.651	1.00	28.89	N
ATOM	9809	CA GLU C 348	33.065	96.155	86.308	1.00	28.48	C
ATOM	9811	CB GLU C 348	33.578	94.767	86.710	1.00	28.54	C
ATOM	9814	CG GLU C 348	34.222	93.980	85.571	1.00	28.57	C
ATOM	9817	CD GLU C 348	35.728	94.160	85.486	1.00	28.72	C
ATOM	9818	OE1 GLU C 348	36.268	94.124	84.357	1.00	29.57	O
ATOM	9819	OE2 GLU C 348	36.380	94.334	86.539	1.00	28.83	O
ATOM	9820	C GLU C 348	32.522	96.876	87.539	1.00	28.22	C
ATOM	9821	O GLU C 348	31.654	96.355	88.247	1.00	27.96	O
ATOM	9822	N PHE C 349	33.072	98.061	87.798	1.00	27.96	N
ATOM	9824	CA PHE C 349	32.557	98.996	88.794	1.00	27.71	C
ATOM	9826	CB PHE C 349	33.742	99.553	89.609	1.00	27.74	C
ATOM	9829	CG PHE C 349	33.367	100.516	90.725	1.00	28.59	C
ATOM	9830	CD1 PHE C 349	32.140	100.457	91.374	1.00	29.06	C
ATOM	9832	CE1 PHE C 349	31.840	101.349	92.399	1.00	29.59	C
ATOM	9834	CZ PHE C 349	32.769	102.301	92.796	1.00	29.26	C
ATOM	9836	CE2 PHE C 349	33.989	102.363	92.172	1.00	28.66	C
ATOM	9838	CD2 PHE C 349	34.288	101.475	91.146	1.00	29.12	C
ATOM	9840	C PHE C 349	31.744	100.113	88.096	1.00	27.25	C
ATOM	9841	O PHE C 349	30.771	100.601	88.659	1.00	27.59	O
ATOM	9842	N ILE C 350	32.122	100.489	86.867	1.00	26.78	N
ATOM	9844	CA ILE C 350	31.445	101.562	86.110	1.00	26.20	C
ATOM	9846	CB ILE C 350	32.420	102.239	85.091	1.00	26.26	C
ATOM	9848	CG1 ILE C 350	33.592	102.924	85.802	1.00	26.42	C
ATOM	9851	CD1 ILE C 350	34.836	103.084	84.904	1.00	26.70	C
ATOM	9855	CG2 ILE C 350	31.689	103.269	84.207	1.00	26.08	C
ATOM	9859	C ILE C 350	30.196	101.088	85.354	1.00	25.72	C
ATOM	9860	O ILE C 350	29.230	101.832	85.247	1.00	25.62	O
ATOM	9861	N ASN C 351	30.219	99.875	84.809	1.00	25.21	N
ATOM	9863	CA ASN C 351	29.082	99.374	84.035	1.00	24.96	C
ATOM	9865	CB ASN C 351	29.422	98.057	83.322	1.00	24.86	C
ATOM	9868	CG ASN C 351	30.401	98.245	82.153	1.00	25.77	C
ATOM	9869	OD1 ASN C 351	30.457	99.308	81.523	1.00	26.02	O
ATOM	9870	ND2 ASN C 351	31.172	97.198	81.858	1.00	25.78	N
ATOM	9873	C ASN C 351	27.792	99.233	84.867	1.00	24.70	C
ATOM	9874	O ASN C 351	26.760	99.768	84.466	1.00	24.83	O
ATOM	9875	N PRO C 352	27.828	98.551	86.016	1.00	24.16	N
ATOM	9876	CA PRO C 352	26.598	98.339	86.802	1.00	24.18	C
ATOM	9878	CB PRO C 352	27.060	97.425	87.953	1.00	24.24	C
ATOM	9881	CG PRO C 352	28.381	96.867	87.501	1.00	24.24	C
ATOM	9884	CD PRO C 352	28.999	97.944	86.671	1.00	23.97	C
ATOM	9887	C PRO C 352	25.968	99.622	87.364	1.00	24.01	C
ATOM	9888	O PRO C 352	24.755	99.639	87.565	1.00	23.97	O
ATOM	9889	N ILE C 353	26.781	100.653	87.615	1.00	23.70	N

ATOM	9891	CA	ILE C 353	26.306	101.938	88.134	1.00	23.36	C
ATOM	9893	CB	ILE C 353	27.495	102.793	88.656	1.00	23.41	C
ATOM	9895	CG1	ILE C 353	28.178	102.106	89.842	1.00	23.42	C
ATOM	9898	CD1	ILE C 353	29.420	102.820	90.337	1.00	23.49	C
ATOM	9902	CG2	ILE C 353	27.015	104.190	89.075	1.00	23.20	C
ATOM	9906	C	ILE C 353	25.537	102.735	87.079	1.00	23.29	C
ATOM	9907	O	ILE C 353	24.577	103.439	87.401	1.00	22.97	O
ATOM	9908	N	PHE C 354	25.985	102.660	85.827	1.00	23.02	N
ATOM	9910	CA	PHE C 354	25.286	103.334	84.732	1.00	22.96	C
ATOM	9912	CB	PHE C 354	26.198	103.508	83.517	1.00	23.12	C
ATOM	9915	CG	PHE C 354	26.964	104.811	83.514	1.00	23.93	C
ATOM	9916	CD1	PHE C 354	28.159	104.934	84.208	1.00	24.40	C
ATOM	9918	CE1	PHE C 354	28.874	106.126	84.193	1.00	24.30	C
ATOM	9920	CZ	PHE C 354	28.397	107.209	83.491	1.00	24.43	C
ATOM	9922	CE2	PHE C 354	27.207	107.105	82.786	1.00	24.83	C
ATOM	9924	CD2	PHE C 354	26.496	105.909	82.801	1.00	24.84	C
ATOM	9926	C	PHE C 354	24.012	102.575	84.350	1.00	22.50	C
ATOM	9927	O	PHE C 354	23.036	103.176	83.899	1.00	22.50	O
ATOM	9928	N	GLU C 355	24.031	101.259	84.533	1.00	22.02	N
ATOM	9930	CA	GLU C 355	22.836	100.434	84.373	1.00	21.74	C
ATOM	9932	CB	GLU C 355	23.196	98.932	84.395	1.00	21.83	C
ATOM	9935	CG	GLU C 355	22.744	98.125	83.179	1.00	22.57	C
ATOM	9938	CD	GLU C 355	23.799	97.115	82.705	1.00	23.44	C
ATOM	9939	OE1	GLU C 355	23.969	96.928	81.475	1.00	22.50	O
ATOM	9940	OE2	GLU C 355	24.463	96.502	83.572	1.00	24.23	O
ATOM	9941	C	GLU C 355	21.859	100.768	85.511	1.00	21.11	C
ATOM	9942	O	GLU C 355	20.646	100.851	85.307	1.00	20.86	O
ATOM	9943	N	PHE C 356	22.384	100.975	86.711	1.00	20.31	N
ATOM	9945	CA	PHE C 356	21.511	101.303	87.837	1.00	20.11	C
ATOM	9947	CB	PHE C 356	22.258	101.311	89.169	1.00	19.71	C
ATOM	9950	CG	PHE C 356	21.360	101.575	90.347	1.00	20.79	C
ATOM	9951	CD1	PHE C 356	20.447	100.614	90.760	1.00	21.75	C
ATOM	9953	CE1	PHE C 356	19.605	100.844	91.826	1.00	21.97	C
ATOM	9955	CZ	PHE C 356	19.654	102.071	92.490	1.00	23.12	C
ATOM	9957	CE2	PHE C 356	20.554	103.049	92.067	1.00	21.68	C
ATOM	9959	CD2	PHE C 356	21.390	102.797	91.004	1.00	20.58	C
ATOM	9961	C	PHE C 356	20.895	102.668	87.573	1.00	19.69	C
ATOM	9962	O	PHE C 356	19.650	102.846	87.643	1.00	19.08	O
ATOM	9963	N	SER C 357	21.787	103.607	87.227	1.00	19.64	N
ATOM	9965	CA	SER C 357	21.411	104.972	86.894	1.00	19.63	C
ATOM	9967	CB	SER C 357	22.623	105.755	86.374	1.00	19.47	C
ATOM	9970	OG	SER C 357	23.513	106.106	87.417	1.00	18.07	O
ATOM	9972	C	SER C 357	20.295	105.020	85.862	1.00	19.99	C
ATOM	9973	O	SER C 357	19.307	105.729	86.049	1.00	20.17	O
ATOM	9974	N	ARG C 358	20.430	104.253	84.793	1.00	20.29	N
ATOM	9976	CA	ARG C 358	19.464	104.344	83.714	1.00	21.21	C
ATOM	9978	CB	ARG C 358	20.103	103.971	82.360	1.00	21.36	C
ATOM	9981	CG	ARG C 358	19.989	102.525	81.901	1.00	23.32	C

ATOM	9984	CD	ARG C 358	20.690	102.292	80.555	1.00	24.66	C
ATOM	9987	NE	ARG C 358	22.088	102.751	80.620	1.00	26.32	N
ATOM	9989	CZ	ARG C 358	23.159	101.977	80.935	1.00	28.56	C
ATOM	9990	NH1	ARG C 358	23.022	100.674	81.205	1.00	28.88	N
ATOM	9993	NH2	ARG C 358	24.385	102.515	80.950	1.00	29.96	N
ATOM	9996	C	ARG C 358	18.184	103.566	84.037	1.00	21.24	C
ATOM	9997	O	ARG C 358	17.101	103.910	83.556	1.00	21.87	O
ATOM	9998	N	ALA C 359	18.303	102.525	84.852	1.00	21.25	N
ATOM	10000	CA	ALA C 359	17.129	101.770	85.276	1.00	21.64	C
ATOM	10002	CB	ALA C 359	17.522	100.456	85.927	1.00	21.55	C
ATOM	10006	C	ALA C 359	16.279	102.622	86.216	1.00	22.35	C
ATOM	10007	O	ALA C 359	15.056	102.459	86.276	1.00	22.40	O
ATOM	10008	N	MET C 360	16.922	103.553	86.923	1.00	22.66	N
ATOM	10010	CA	MET C 360	16.197	104.555	87.684	1.00	23.32	C
ATOM	10012	CB	MET C 360	17.137	105.295	88.638	1.00	23.88	C
ATOM	10015	CG	MET C 360	17.731	104.413	89.741	1.00	24.60	C
ATOM	10018	SD	MET C 360	16.721	104.377	91.213	1.00	30.15	S
ATOM	10019	CE	MET C 360	15.846	102.995	90.912	1.00	29.26	C
ATOM	10023	C	MET C 360	15.432	105.560	86.807	1.00	23.56	C
ATOM	10024	O	MET C 360	14.338	105.997	87.188	1.00	23.48	O
ATOM	10025	N	ARG C 361	15.969	105.915	85.638	1.00	23.81	N
ATOM	10027	CA	ARG C 361	15.280	106.879	84.783	1.00	24.20	C
ATOM	10029	CB	ARG C 361	16.148	107.326	83.573	1.00	24.79	C
ATOM	10032	CG	ARG C 361	16.187	108.860	83.365	1.00	26.92	C
ATOM	10035	CD	ARG C 361	16.661	109.654	84.627	1.00	30.24	C
ATOM	10038	NE	ARG C 361	16.053	110.989	84.746	1.00	32.03	N
ATOM	10040	CZ	ARG C 361	15.969	111.706	85.873	1.00	33.99	C
ATOM	10041	NH1	ARG C 361	16.430	111.247	87.049	1.00	34.23	N
ATOM	10044	NH2	ARG C 361	15.403	112.908	85.822	1.00	35.68	N
ATOM	10047	C	ARG C 361	13.925	106.338	84.330	1.00	23.86	C
ATOM	10048	O	ARG C 361	12.911	107.069	84.382	1.00	24.38	O
ATOM	10049	N	ARG C 362	13.915	105.071	83.894	1.00	23.50	N
ATOM	10051	CA	ARG C 362	12.695	104.382	83.440	1.00	23.22	C
ATOM	10053	CB	ARG C 362	12.951	102.874	83.279	1.00	23.37	C
ATOM	10056	CG	ARG C 362	13.918	102.464	82.151	1.00	23.80	C
ATOM	10059	CD	ARG C 362	14.507	101.050	82.314	1.00	24.20	C
ATOM	10062	NE	ARG C 362	15.603	100.809	81.370	1.00	25.42	N
ATOM	10064	CZ	ARG C 362	16.711	100.111	81.628	1.00	25.11	C
ATOM	10065	NH1	ARG C 362	16.901	99.536	82.814	1.00	24.28	N
ATOM	10068	NH2	ARG C 362	17.636	99.970	80.671	1.00	25.33	N
ATOM	10071	C	ARG C 362	11.561	104.570	84.441	1.00	22.97	C
ATOM	10072	O	ARG C 362	10.385	104.646	84.081	1.00	22.22	O
ATOM	10073	N	LEU C 363	11.948	104.613	85.715	1.00	23.48	N
ATOM	10075	CA	LEU C 363	11.016	104.763	86.832	1.00	23.40	C
ATOM	10077	CB	LEU C 363	11.645	104.253	88.116	1.00	23.65	C
ATOM	10080	CG	LEU C 363	11.589	102.738	88.298	1.00	24.41	C
ATOM	10082	CD1	LEU C 363	12.171	102.414	89.650	1.00	24.85	C
ATOM	10086	CD2	LEU C 363	10.165	102.205	88.181	1.00	24.58	C

ATOM 10090	C	LEU C 363	10.530	106.192	87.027	1.00	23.05	C
ATOM 10091	O	LEU C 363	9.377	106.412	87.419	1.00	23.00	O
ATOM 10092	N	GLY C 364	11.410	107.151	86.741	1.00	22.83	N
ATOM 10094	CA	GLY C 364	11.008	108.534	86.499	1.00	22.35	C
ATOM 10097	C	GLY C 364	10.641	109.217	87.783	1.00	21.76	C
ATOM 10098	O	GLY C 364	9.658	109.951	87.864	1.00	21.26	O
ATOM 10099	N	LEU C 365	11.455	108.959	88.793	1.00	21.51	N
ATOM 10101	CA	LEU C 365	11.234	109.519	90.114	1.00	21.03	C
ATOM 10103	CB	LEU C 365	12.143	108.865	91.144	1.00	20.65	C
ATOM 10106	CG	LEU C 365	12.368	107.358	91.122	1.00	21.08	C
ATOM 10108	CD1	LEU C 365	13.044	107.004	92.460	1.00	22.02	C
ATOM 10112	CD2	LEU C 365	11.079	106.571	90.916	1.00	20.54	C
ATOM 10116	C	LEU C 365	11.503	111.016	90.102	1.00	20.73	C
ATOM 10117	O	LEU C 365	12.407	111.484	89.409	1.00	21.32	O
ATOM 10118	N	ASP C 366	10.714	111.757	90.871	1.00	20.00	N
ATOM 10120	CA	ASP C 366	10.991	113.161	91.132	1.00	19.45	C
ATOM 10122	CB	ASP C 366	9.697	113.977	91.126	1.00	19.28	C
ATOM 10125	CG	ASP C 366	8.683	113.455	92.098	1.00	19.71	C
ATOM 10126	OD1	ASP C 366	9.092	113.087	93.215	1.00	21.40	O
ATOM 10127	OD2	ASP C 366	7.470	113.348	91.844	1.00	19.87	O
ATOM 10128	C	ASP C 366	11.720	113.268	92.476	1.00	19.07	C
ATOM 10129	O	ASP C 366	12.003	112.263	93.125	1.00	19.27	O
ATOM 10130	N	ASP C 367	12.015	114.488	92.884	1.00	18.72	N
ATOM 10132	CA	ASP C 367	12.764	114.758	94.119	1.00	18.83	C
ATOM 10134	CB	ASP C 367	12.997	116.278	94.260	1.00	19.03	C
ATOM 10137	CG	ASP C 367	13.933	116.818	93.184	1.00	20.37	C
ATOM 10138	OD1	ASP C 367	14.541	115.992	92.456	1.00	22.82	O
ATOM 10139	OD2	ASP C 367	14.127	118.034	92.998	1.00	22.97	O
ATOM 10140	C	ASP C 367	12.137	114.198	95.393	1.00	17.53	C
ATOM 10141	O	ASP C 367	12.831	113.657	96.236	1.00	17.54	O
ATOM 10142	N	ALA C 368	10.825	114.317	95.499	1.00	16.37	N
ATOM 10144	CA	ALA C 368	10.087	113.797	96.622	1.00	15.67	C
ATOM 10146	CB	ALA C 368	8.605	114.125	96.454	1.00	15.18	C
ATOM 10150	C	ALA C 368	10.308	112.280	96.767	1.00	15.68	C
ATOM 10151	O	ALA C 368	10.513	111.774	97.878	1.00	14.84	O
ATOM 10152	N	GLU C 369	10.266	111.583	95.628	1.00	15.85	N
ATOM 10154	CA	GLU C 369	10.353	110.128	95.561	1.00	16.13	C
ATOM 10156	CB	GLU C 369	9.860	109.624	94.217	1.00	16.06	C
ATOM 10159	CG	GLU C 369	8.374	109.828	94.055	1.00	17.12	C
ATOM 10162	CD	GLU C 369	7.877	109.577	92.647	1.00	18.03	C
ATOM 10163	OE1	GLU C 369	6.866	108.884	92.536	1.00	20.82	O
ATOM 10164	OE2	GLU C 369	8.469	110.052	91.656	1.00	18.31	O
ATOM 10165	C	GLU C 369	11.744	109.594	95.836	1.00	16.23	C
ATOM 10166	O	GLU C 369	11.886	108.550	96.445	1.00	16.69	O
ATOM 10167	N	TYR C 370	12.762	110.314	95.404	1.00	16.55	N
ATOM 10169	CA	TYR C 370	14.145	109.957	95.744	1.00	16.91	C
ATOM 10171	CB	TYR C 370	15.126	110.805	94.935	1.00	16.93	C
ATOM 10174	CG	TYR C 370	15.577	110.198	93.646	1.00	17.84	C

ATOM 10175	CD1 TYR C 370	15.126	110.684	92.413	1.00	19.06	C
ATOM 10177	CE1 TYR C 370	15.579	110.119	91.207	1.00	19.31	C
ATOM 10179	CZ TYR C 370	16.484	109.067	91.247	1.00	19.58	C
ATOM 10180	OH TYR C 370	16.966	108.484	90.093	1.00	22.52	O
ATOM 10182	CE2 TYR C 370	16.933	108.582	92.454	1.00	20.02	C
ATOM 10184	CD2 TYR C 370	16.489	109.153	93.645	1.00	19.34	C
ATOM 10186	C TYR C 370	14.405	110.209	97.224	1.00	16.75	C
ATOM 10187	O TYR C 370	15.209	109.536	97.854	1.00	16.88	O
ATOM 10188	N ALA C 371	13.735	111.213	97.759	1.00	16.99	N
ATOM 10190	CA ALA C 371	13.937	111.635	99.145	1.00	17.27	C
ATOM 10192	CB ALA C 371	13.291	112.993	99.374	1.00	17.08	C
ATOM 10196	C ALA C 371	13.335	110.567	100.051	1.00	16.84	C
ATOM 10197	O ALA C 371	13.988	110.073	100.932	1.00	16.85	O
ATOM 10198	N LEU C 372	12.102	110.181	99.753	1.00	17.01	N
ATOM 10200	CA LEU C 372	11.404	109.117	100.441	1.00	17.09	C
ATOM 10202	CB LEU C 372	9.970	108.972	99.929	1.00	17.59	C
ATOM 10205	CG LEU C 372	9.044	110.149	100.313	1.00	17.05	C
ATOM 10207	CD1 LEU C 372	7.889	110.186	99.401	1.00	16.74	C
ATOM 10211	CD2 LEU C 372	8.559	109.988	101.719	1.00	16.75	C
ATOM 10215	C LEU C 372	12.074	107.789	100.327	1.00	17.40	C
ATOM 10216	O LEU C 372	12.039	107.043	101.283	1.00	18.12	O
ATOM 10217	N LEU C 373	12.664	107.465	99.176	1.00	17.55	N
ATOM 10219	CA LEU C 373	13.380	106.194	99.021	1.00	17.11	C
ATOM 10221	CB LEU C 373	13.757	105.902	97.556	1.00	17.61	C
ATOM 10224	CG LEU C 373	12.821	104.978	96.754	1.00	19.97	C
ATOM 10226	CD1 LEU C 373	13.294	104.804	95.293	1.00	20.70	C
ATOM 10230	CD2 LEU C 373	12.685	103.626	97.424	1.00	20.60	C
ATOM 10234	C LEU C 373	14.634	106.211	99.872	1.00	16.04	C
ATOM 10235	O LEU C 373	15.007	105.210	100.453	1.00	15.69	O
ATOM 10236	N ILE C 374	15.286	107.356	99.934	1.00	15.15	N
ATOM 10238	CA ILE C 374	16.471	107.496	100.747	1.00	14.92	C
ATOM 10240	CB ILE C 374	17.107	108.871	100.509	1.00	14.52	C
ATOM 10242	CG1 ILE C 374	17.863	108.868	99.174	1.00	13.50	C
ATOM 10245	CD1 ILE C 374	18.178	110.229	98.652	1.00	14.08	C
ATOM 10249	CG2 ILE C 374	18.094	109.237	101.625	1.00	15.97	C
ATOM 10253	C ILE C 374	16.148	107.247	102.242	1.00	15.39	C
ATOM 10254	O ILE C 374	16.804	106.436	102.899	1.00	14.33	O
ATOM 10255	N ALA C 375	15.139	107.940	102.759	1.00	15.76	N
ATOM 10257	CA ALA C 375	14.701	107.752	104.144	1.00	16.21	C
ATOM 10259	CB ALA C 375	13.529	108.715	104.488	1.00	16.50	C
ATOM 10263	C ALA C 375	14.301	106.315	104.430	1.00	16.30	C
ATOM 10264	O ALA C 375	14.640	105.778	105.504	1.00	16.83	O
ATOM 10265	N ILE C 376	13.603	105.675	103.487	1.00	16.26	N
ATOM 10267	CA ILE C 376	13.248	104.260	103.641	1.00	16.17	C
ATOM 10269	CB ILE C 376	12.388	103.765	102.483	1.00	15.65	C
ATOM 10271	CG1 ILE C 376	10.962	104.324	102.577	1.00	14.92	C
ATOM 10274	CD1 ILE C 376	10.252	104.412	101.217	1.00	13.64	C
ATOM 10278	CG2 ILE C 376	12.311	102.230	102.478	1.00	15.37	C

ATOM 10282	C	ILE C 376	14.512	103.389	103.749	1.00	17.06	C
ATOM 10283	O	ILE C 376	14.534	102.404	104.506	1.00	17.32	O
ATOM 10284	N	ASN C 377	15.543	103.744	102.976	1.00	17.57	N
ATOM 10286	CA	ASN C 377	16.820	103.013	102.968	1.00	17.73	C
ATOM 10288	CB	ASN C 377	17.752	103.496	101.848	1.00	17.99	C
ATOM 10291	CG	ASN C 377	18.896	102.520	101.578	1.00	19.82	C
ATOM 10292	OD1	ASN C 377	20.070	102.880	101.638	1.00	21.89	O
ATOM 10293	ND2	ASN C 377	18.552	101.269	101.319	1.00	21.75	N
ATOM 10296	C	ASN C 377	17.554	103.162	104.283	1.00	17.65	C
ATOM 10297	O	ASN C 377	18.123	102.204	104.772	1.00	17.41	O
ATOM 10298	N	ILE C 378	17.523	104.362	104.861	1.00	17.48	N
ATOM 10300	CA	ILE C 378	18.224	104.627	106.099	1.00	17.47	C
ATOM 10302	CB	ILE C 378	18.164	106.130	106.434	1.00	17.43	C
ATOM 10304	CG1	ILE C 378	18.964	106.953	105.415	1.00	18.45	C
ATOM 10307	CD1	ILE C 378	18.754	108.508	105.545	1.00	18.06	C
ATOM 10311	CG2	ILE C 378	18.768	106.411	107.814	1.00	18.61	C
ATOM 10315	C	ILE C 378	17.654	103.753	107.247	1.00	17.23	C
ATOM 10316	O	ILE C 378	18.400	103.188	108.018	1.00	16.66	O
ATOM 10317	N	PHE C 379	16.330	103.626	107.318	1.00	17.55	N
ATOM 10319	CA	PHE C 379	15.659	102.894	108.394	1.00	17.18	C
ATOM 10321	CB	PHE C 379	14.332	103.566	108.741	1.00	16.99	C
ATOM 10324	CG	PHE C 379	14.489	104.973	109.255	1.00	16.94	C
ATOM 10325	CD1	PHE C 379	13.915	106.031	108.612	1.00	16.97	C
ATOM 10327	CE1	PHE C 379	14.085	107.298	109.074	1.00	15.85	C
ATOM 10329	CZ	PHE C 379	14.825	107.539	110.174	1.00	15.48	C
ATOM 10331	CE2	PHE C 379	15.408	106.515	110.832	1.00	16.69	C
ATOM 10333	CD2	PHE C 379	15.260	105.233	110.367	1.00	18.66	C
ATOM 10335	C	PHE C 379	15.431	101.445	108.028	1.00	17.81	C
ATOM 10336	O	PHE C 379	14.307	100.966	108.065	1.00	18.46	O
ATOM 10337	N	SER C 380	16.509	100.748	107.678	1.00	17.88	N
ATOM 10339	CA	SER C 380	16.485	99.310	107.441	1.00	17.98	C
ATOM 10341	CB	SER C 380	17.496	98.909	106.356	1.00	17.76	C
ATOM 10344	OG	SER C 380	17.303	99.647	105.163	1.00	16.61	O
ATOM 10346	C	SER C 380	16.903	98.662	108.728	1.00	18.11	C
ATOM 10347	O	SER C 380	17.982	98.947	109.228	1.00	18.24	O
ATOM 10348	N	ALA C 381	16.077	97.768	109.256	1.00	18.87	N
ATOM 10350	CA	ALA C 381	16.282	97.263	110.629	1.00	19.14	C
ATOM 10352	CB	ALA C 381	15.004	96.671	111.221	1.00	18.10	C
ATOM 10356	C	ALA C 381	17.374	96.227	110.613	1.00	19.86	C
ATOM 10357	O	ALA C 381	17.918	95.904	111.649	1.00	20.58	O
ATOM 10358	N	ASP C 382	17.720	95.740	109.426	1.00	20.78	N
ATOM 10360	CA	ASP C 382	18.578	94.574	109.308	1.00	21.80	C
ATOM 10362	CB	ASP C 382	18.049	93.631	108.217	1.00	22.59	C
ATOM 10365	CG	ASP C 382	17.712	94.340	106.924	1.00	25.32	C
ATOM 10366	OD1	ASP C 382	18.345	95.372	106.572	1.00	28.27	O
ATOM 10367	OD2	ASP C 382	16.800	93.907	106.184	1.00	31.03	O
ATOM 10368	C	ASP C 382	20.063	94.875	109.087	1.00	21.30	C
ATOM 10369	O	ASP C 382	20.850	93.961	108.880	1.00	21.67	O

ATOM 10370	N	ARG C 383	20.464	96.133	109.158	1.00	20.76	N
ATOM 10372	CA	ARG C 383	21.870	96.458	108.966	1.00	20.40	C
ATOM 10374	CB	ARG C 383	22.102	97.968	108.964	1.00	20.24	C
ATOM 10377	CG	ARG C 383	21.280	98.721	107.973	1.00	20.86	C
ATOM 10380	CD	ARG C 383	21.471	98.305	106.512	1.00	20.81	C
ATOM 10383	NE	ARG C 383	21.060	99.411	105.651	1.00	23.05	N
ATOM 10385	CZ	ARG C 383	21.448	99.608	104.392	1.00	23.62	C
ATOM 10386	NH1	ARG C 383	22.284	98.767	103.791	1.00	22.88	N
ATOM 10389	NH2	ARG C 383	20.988	100.673	103.737	1.00	23.93	N
ATOM 10392	C	ARG C 383	22.705	95.828	110.072	1.00	20.60	C
ATOM 10393	O	ARG C 383	22.193	95.559	111.171	1.00	20.49	O
ATOM 10394	N	PRO C 384	23.990	95.591	109.791	1.00	20.64	N
ATOM 10395	CA	PRO C 384	24.900	95.098	110.820	1.00	20.23	C
ATOM 10397	CB	PRO C 384	26.252	95.045	110.100	1.00	20.42	C
ATOM 10400	CG	PRO C 384	25.906	94.926	108.642	1.00	20.49	C
ATOM 10403	CD	PRO C 384	24.675	95.752	108.487	1.00	20.78	C
ATOM 10406	C	PRO C 384	24.938	96.050	112.006	1.00	20.18	C
ATOM 10407	O	PRO C 384	24.774	97.273	111.839	1.00	20.56	O
ATOM 10408	N	ASN C 385	25.073	95.470	113.198	1.00	19.50	N
ATOM 10410	CA	ASN C 385	25.282	96.212	114.440	1.00	18.82	C
ATOM 10412	CB	ASN C 385	26.525	97.100	114.315	1.00	18.73	C
ATOM 10415	CG	ASN C 385	27.764	96.298	113.980	1.00	19.31	C
ATOM 10416	OD1	ASN C 385	28.111	95.354	114.686	1.00	18.15	O
ATOM 10417	ND2	ASN C 385	28.423	96.653	112.887	1.00	20.05	N
ATOM 10420	C	ASN C 385	24.105	97.015	114.988	1.00	17.94	C
ATOM 10421	O	ASN C 385	24.272	97.731	115.967	1.00	17.75	O
ATOM 10422	N	VAL C 386	22.920	96.870	114.404	1.00	17.31	N
ATOM 10424	CA	VAL C 386	21.746	97.617	114.863	1.00	16.98	C
ATOM 10426	CB	VAL C 386	20.583	97.561	113.834	1.00	16.96	C
ATOM 10428	CG1	VAL C 386	19.256	97.893	114.462	1.00	17.21	C
ATOM 10432	CG2	VAL C 386	20.843	98.519	112.699	1.00	16.77	C
ATOM 10436	C	VAL C 386	21.323	97.075	116.230	1.00	16.99	C
ATOM 10437	O	VAL C 386	21.182	95.869	116.411	1.00	16.69	O
ATOM 10438	N	GLN C 387	21.143	97.971	117.198	1.00	16.81	N
ATOM 10440	CA	GLN C 387	20.861	97.554	118.568	1.00	17.01	C
ATOM 10442	CB	GLN C 387	21.595	98.454	119.582	1.00	17.44	C
ATOM 10445	CG	GLN C 387	23.103	98.095	119.742	1.00	19.87	C
ATOM 10448	CD	GLN C 387	23.773	98.768	120.958	1.00	25.61	C
ATOM 10449	OE1	GLN C 387	23.707	98.247	122.088	1.00	28.07	O
ATOM 10450	NE2	GLN C 387	24.430	99.915	120.730	1.00	28.85	N
ATOM 10453	C	GLN C 387	19.351	97.492	118.800	1.00	16.32	C
ATOM 10454	O	GLN C 387	18.875	96.659	119.549	1.00	15.38	O
ATOM 10455	N	GLU C 388	18.594	98.331	118.095	1.00	16.53	N
ATOM 10457	CA	GLU C 388	17.144	98.385	118.264	1.00	16.09	C
ATOM 10459	CB	GLU C 388	16.764	99.681	118.965	1.00	16.06	C
ATOM 10462	CG	GLU C 388	17.286	99.703	120.404	1.00	18.42	C
ATOM 10465	CD	GLU C 388	16.865	100.927	121.208	1.00	18.48	C
ATOM 10466	OE1	GLU C 388	16.985	102.090	120.720	1.00	15.22	O

ATOM 10467	OE2 GLU C 388	16.450	100.703	122.359	1.00	21.22	O
ATOM 10468	C GLU C 388	16.430	98.210	116.930	1.00	15.40	C
ATOM 10469	O GLU C 388	15.942	99.173	116.383	1.00	15.04	O
ATOM 10470	N PRO C 389	16.403	96.981	116.390	1.00	15.72	N
ATOM 10471	CA PRO C 389	15.651	96.688	115.150	1.00	15.71	C
ATOM 10473	CB PRO C 389	15.727	95.164	115.032	1.00	15.89	C
ATOM 10476	CG PRO C 389	16.318	94.659	116.329	1.00	14.99	C
ATOM 10479	CD PRO C 389	17.120	95.788	116.882	1.00	15.27	C
ATOM 10482	C PRO C 389	14.197	97.143	115.228	1.00	16.18	C
ATOM 10483	O PRO C 389	13.704	97.776	114.307	1.00	15.95	O
ATOM 10484	N GLY C 390	13.536	96.853	116.346	1.00	16.92	N
ATOM 10486	CA GLY C 390	12.155	97.279	116.556	1.00	16.79	C
ATOM 10489	C GLY C 390	11.889	98.750	116.344	1.00	17.11	C
ATOM 10490	O GLY C 390	10.893	99.093	115.718	1.00	17.75	O
ATOM 10491	N ARG C 391	12.745	99.629	116.878	1.00	17.66	N
ATOM 10493	CA ARG C 391	12.592	101.082	116.655	1.00	18.13	C
ATOM 10495	CB ARG C 391	13.614	101.934	117.413	1.00	18.77	C
ATOM 10498	CG ARG C 391	13.675	101.810	118.857	1.00	24.55	C
ATOM 10501	CD ARG C 391	14.683	102.805	119.477	1.00	29.16	C
ATOM 10504	NE ARG C 391	14.076	104.107	119.567	1.00	31.78	N
ATOM 10506	CZ ARG C 391	13.182	104.413	120.470	1.00	34.82	C
ATOM 10507	NH1 ARG C 391	12.835	103.520	121.392	1.00	36.74	N
ATOM 10510	NH2 ARG C 391	12.626	105.609	120.456	1.00	37.16	N
ATOM 10513	C ARG C 391	12.818	101.466	115.210	1.00	16.18	C
ATOM 10514	O ARG C 391	12.147	102.322	114.689	1.00	15.38	O
ATOM 10515	N VAL C 392	13.847	100.894	114.606	1.00	15.70	N
ATOM 10517	CA VAL C 392	14.229	101.269	113.247	1.00	15.66	C
ATOM 10519	CB VAL C 392	15.553	100.608	112.817	1.00	15.19	C
ATOM 10521	CG1 VAL C 392	15.897	100.980	111.376	1.00	15.63	C
ATOM 10525	CG2 VAL C 392	16.687	101.041	113.724	1.00	14.28	C
ATOM 10529	C VAL C 392	13.081	100.953	112.282	1.00	15.55	C
ATOM 10530	O VAL C 392	12.685	101.791	111.480	1.00	14.85	O
ATOM 10531	N GLU C 393	12.511	99.764	112.435	1.00	16.20	N
ATOM 10533	CA GLU C 393	11.417	99.333	111.588	1.00	17.13	C
ATOM 10535	CB GLU C 393	11.121	97.859	111.816	1.00	17.76	C
ATOM 10538	CG GLU C 393	9.758	97.464	111.291	1.00	21.52	C
ATOM 10541	CD GLU C 393	9.695	96.060	110.805	1.00	25.44	C
ATOM 10542	OE1 GLU C 393	9.791	95.881	109.555	1.00	28.53	O
ATOM 10543	OE2 GLU C 393	9.519	95.164	111.680	1.00	29.10	O
ATOM 10544	C GLU C 393	10.142	100.173	111.759	1.00	16.73	C
ATOM 10545	O GLU C 393	9.493	100.506	110.781	1.00	17.69	O
ATOM 10546	N ALA C 394	9.775	100.498	112.984	1.00	15.86	N
ATOM 10548	CA ALA C 394	8.653	101.398	113.245	1.00	15.54	C
ATOM 10550	CB ALA C 394	8.404	101.526	114.760	1.00	15.28	C
ATOM 10554	C ALA C 394	8.851	102.788	112.623	1.00	15.35	C
ATOM 10555	O ALA C 394	7.879	103.395	112.117	1.00	14.06	O
ATOM 10556	N LEU C 395	10.096	103.275	112.652	1.00	15.22	N
ATOM 10558	CA LEU C 395	10.452	104.558	112.014	1.00	15.78	C

ATOM 10560	CB LEU C 395	11.852 104.992 112.420	1.00 15.68	C
ATOM 10563	CG LEU C 395	11.918 105.480 113.861	1.00 16.97	C
ATOM 10565	CD1 LEU C 395	13.361 105.689 114.268	1.00 19.03	C
ATOM 10569	CD2 LEU C 395	11.107 106.770 114.058	1.00 18.08	C
ATOM 10573	C LEU C 395	10.355 104.529 110.485	1.00 16.08	C
ATOM 10574	O LEU C 395	10.014 105.516 109.859	1.00 16.06	O
ATOM 10575	N GLN C 396	10.642 103.382 109.894	1.00 16.66	N
ATOM 10577	CA GLN C 396	10.517 103.229 108.459	1.00 17.47	C
ATOM 10579	CB GLN C 396	11.134 101.895 108.028	1.00 17.68	C
ATOM 10582	CG GLN C 396	11.324 101.768 106.542	1.00 16.72	C
ATOM 10585	CD GLN C 396	11.835 100.405 106.179	1.00 18.42	C
ATOM 10586	OE1 GLN C 396	11.147 99.393 106.369	1.00 18.27	O
ATOM 10587	NE2 GLN C 396	13.034 100.367 105.647	1.00 17.65	N
ATOM 10590	C GLN C 396	9.072 103.279 107.956	1.00 17.63	C
ATOM 10591	O GLN C 396	8.821 103.809 106.869	1.00 17.64	O
ATOM 10592	N GLN C 397	8.149 102.710 108.724	1.00 17.50	N
ATOM 10594	CA GLN C 397	6.740 102.654 108.344	1.00 18.27	C
ATOM 10596	CB GLN C 397	5.859 102.191 109.506	1.00 19.03	C
ATOM 10599	CG GLN C 397	4.431 101.773 109.037	1.00 23.38	C
ATOM 10602	CD GLN C 397	3.449 101.459 110.189	1.00 26.76	C
ATOM 10603	OE1 GLN C 397	2.222 101.632 110.031	1.00 28.67	O
ATOM 10604	NE2 GLN C 397	3.983 100.997 111.327	1.00 26.27	N
ATOM 10607	C GLN C 397	6.147 103.936 107.740	1.00 17.26	C
ATOM 10608	O GLN C 397	5.620 103.884 106.635	1.00 17.45	O
ATOM 10609	N PRO C 398	6.167 105.066 108.437	1.00 16.37	N
ATOM 10610	CA PRO C 398	5.557 106.287 107.881	1.00 16.00	C
ATOM 10612	CB PRO C 398	5.840 107.337 108.949	1.00 15.99	C
ATOM 10615	CG PRO C 398	6.961 106.770 109.755	1.00 16.38	C
ATOM 10618	CD PRO C 398	6.697 105.304 109.786	1.00 16.31	C
ATOM 10621	C PRO C 398	6.135 106.722 106.530	1.00 15.98	C
ATOM 10622	O PRO C 398	5.441 107.395 105.774	1.00 16.26	O
ATOM 10623	N TYR C 399	7.381 106.359 106.237	1.00 15.50	N
ATOM 10625	CA TYR C 399	8.010 106.723 104.975	1.00 15.01	C
ATOM 10627	CB TYR C 399	9.546 106.768 105.104	1.00 14.45	C
ATOM 10630	CG TYR C 399	10.020 107.922 106.008	1.00 14.13	C
ATOM 10631	CD1 TYR C 399	10.418 107.694 107.319	1.00 14.06	C
ATOM 10633	CE1 TYR C 399	10.834 108.727 108.141	1.00 15.10	C
ATOM 10635	CZ TYR C 399	10.846 110.016 107.658	1.00 12.68	C
ATOM 10636	OH TYR C 399	11.243 111.020 108.451	1.00 13.28	O
ATOM 10638	CE2 TYR C 399	10.444 110.281 106.386	1.00 14.91	C
ATOM 10640	CD2 TYR C 399	10.028 109.218 105.558	1.00 14.31	C
ATOM 10642	C TYR C 399	7.542 105.801 103.869	1.00 15.21	C
ATOM 10643	O TYR C 399	7.317 106.255 102.759	1.00 15.21	O
ATOM 10644	N VAL C 400	7.391 104.519 104.175	1.00 15.84	N
ATOM 10646	CA VAL C 400	6.772 103.571 103.248	1.00 16.94	C
ATOM 10648	CB VAL C 400	6.834 102.110 103.743	1.00 16.80	C
ATOM 10650	CG1 VAL C 400	6.125 101.182 102.760	1.00 16.87	C
ATOM 10654	CG2 VAL C 400	8.278 101.667 103.916	1.00 17.11	C

142

ATOM 10658 C VAL C 400	5.319 103.962 102.969	1.00 17.15	C
ATOM 10659 O VAL C 400	4.912 104.001 101.819	1.00 16.77	O
ATOM 10660 N GLU C 401	4.562 104.267 104.023	1.00 18.06	N
ATOM 10662 CA GLU C 401	3.176 104.751 103.875	1.00 18.84	C
ATOM 10664 CB GLU C 401	2.551 105.092 105.240	1.00 19.09	C
ATOM 10667 CG GLU C 401	1.929 103.886 105.935	1.00 21.89	C
ATOM 10670 CD GLU C 401	1.442 104.153 107.356	1.00 24.70	C
ATOM 10671 OE1 GLU C 401	1.243 103.183 108.115	1.00 27.79	O
ATOM 10672 OE2 GLU C 401	1.260 105.318 107.732	1.00 28.43	O
ATOM 10673 C GLU C 401	3.129 105.968 102.956	1.00 18.12	C
ATOM 10674 O GLU C 401	2.367 106.001 102.007	1.00 17.39	O
ATOM 10675 N ALA C 402	3.984 106.947 103.236	1.00 18.19	N
ATOM 10677 CA ALA C 402	3.995 108.204 102.503	1.00 18.17	C
ATOM 10679 CB ALA C 402	5.011 109.135 103.093	1.00 18.00	C
ATOM 10683 C ALA C 402	4.270 107.995 101.005	1.00 18.61	C
ATOM 10684 O ALA C 402	3.631 108.618 100.154	1.00 18.66	O
ATOM 10685 N LEU C 403	5.213 107.114 100.694	1.00 18.75	N
ATOM 10687 CA LEU C 403	5.619 106.879 99.321	1.00 19.05	C
ATOM 10689 CB LEU C 403	6.997 106.192 99.275	1.00 19.15	C
ATOM 10692 CG LEU C 403	7.513 105.797 97.878	1.00 18.67	C
ATOM 10694 CD1 LEU C 403	7.745 107.045 97.046	1.00 18.95	C
ATOM 10698 CD2 LEU C 403	8.780 104.956 97.957	1.00 16.47	C
ATOM 10702 C LEU C 403	4.572 106.054 98.554	1.00 19.21	C
ATOM 10703 O LEU C 403	4.393 106.234 97.342	1.00 18.82	O
ATOM 10704 N LEU C 404	3.910 105.140 99.253	1.00 19.19	N
ATOM 10706 CA LEU C 404	2.799 104.395 98.684	1.00 19.67	C
ATOM 10708 CB LEU C 404	2.269 103.363 99.684	1.00 19.97	C
ATOM 10711 CG LEU C 404	1.005 102.569 99.318	1.00 20.24	C
ATOM 10713 CD1 LEU C 404	1.185 101.863 98.014	1.00 21.39	C
ATOM 10717 CD2 LEU C 404	0.696 101.557 100.381	1.00 20.47	C
ATOM 10721 C LEU C 404	1.700 105.372 98.302	1.00 19.98	C
ATOM 10722 O LEU C 404	1.176 105.328 97.187	1.00 20.57	O
ATOM 10723 N SER C 405	1.372 106.259 99.235	1.00 20.27	N
ATOM 10725 CA SER C 405	0.396 107.334 99.022	1.00 20.15	C
ATOM 10727 CB SER C 405	0.272 108.202 100.288	1.00 20.21	C
ATOM 10730 OG SER C 405	-0.915 107.924 100.983	1.00 20.15	O
ATOM 10732 C SER C 405	0.790 108.248 97.880	1.00 20.03	C
ATOM 10733 O SER C 405	-0.031 108.543 97.020	1.00 20.53	O
ATOM 10734 N TYR C 406	2.044 108.702 97.896	1.00 20.00	N
ATOM 10736 CA TYR C 406	2.552 109.688 96.939	1.00 19.97	C
ATOM 10738 CB TYR C 406	3.997 110.093 97.260	1.00 19.91	C
ATOM 10741 CG TYR C 406	4.514 111.222 96.395	1.00 18.94	C
ATOM 10742 CD1 TYR C 406	4.398 112.542 96.797	1.00 18.21	C
ATOM 10744 CE1 TYR C 406	4.847 113.586 95.972	1.00 18.94	C
ATOM 10746 CZ TYR C 406	5.411 113.290 94.746	1.00 19.59	C
ATOM 10747 OH TYR C 406	5.865 114.295 93.927	1.00 19.88	O
ATOM 10749 CE2 TYR C 406	5.526 111.977 94.325	1.00 19.06	C
ATOM 10751 CD2 TYR C 406	5.074 110.963 95.140	1.00 19.40	C

ATOM 10753	C	TYR C 406	2.469	109.172	95.510	1.00	20.35	C
ATOM 10754	O	TYR C 406	2.047	109.898	94.626	1.00	20.27	O
ATOM 10755	N	THR C 407	2.854	107.916	95.308	1.00	21.37	N
ATOM 10757	CA	THR C 407	2.865	107.287	93.989	1.00	21.91	C
ATOM 10759	CB	THR C 407	3.704	105.960	93.992	1.00	21.83	C
ATOM 10761	OG1	THR C 407	3.301	105.094	95.061	1.00	20.54	O
ATOM 10763	CG2	THR C 407	5.188	106.223	94.250	1.00	22.28	C
ATOM 10767	C	THR C 407	1.453	106.984	93.492	1.00	23.05	C
ATOM 10768	O	THR C 407	1.188	107.060	92.300	1.00	22.82	O
ATOM 10769	N	ARG C 408	0.559	106.637	94.410	1.00	24.46	N
ATOM 10771	CA	ARG C 408	-0.807	106.265	94.065	1.00	25.85	C
ATOM 10773	CB	ARG C 408	-1.491	105.678	95.298	1.00	26.37	C
ATOM 10776	CG	ARG C 408	-2.916	105.192	95.109	1.00	29.43	C
ATOM 10779	CD	ARG C 408	-3.866	105.573	96.266	1.00	33.67	C
ATOM 10782	NE	ARG C 408	-4.798	104.490	96.601	1.00	36.66	N
ATOM 10784	CZ	ARG C 408	-4.462	103.356	97.226	1.00	38.90	C
ATOM 10785	NH1	ARG C 408	-3.199	103.126	97.604	1.00	39.24	N
ATOM 10788	NH2	ARG C 408	-5.401	102.442	97.467	1.00	39.84	N
ATOM 10791	C	ARG C 408	-1.557	107.482	93.507	1.00	26.15	C
ATOM 10792	O	ARG C 408	-2.403	107.358	92.626	1.00	26.69	O
ATOM 10793	N	ILE C 409	-1.209	108.659	94.002	1.00	26.64	N
ATOM 10795	CA	ILE C 409	-1.754	109.912	93.505	1.00	26.91	C
ATOM 10797	CB	ILE C 409	-1.638	110.998	94.597	1.00	27.04	C
ATOM 10799	CG1	ILE C 409	-2.524	110.619	95.793	1.00	26.61	C
ATOM 10802	CD1	ILE C 409	-2.277	111.419	97.028	1.00	26.26	C
ATOM 10806	CG2	ILE C 409	-2.001	112.382	94.029	1.00	26.68	C
ATOM 10810	C	ILE C 409	-1.040	110.368	92.237	1.00	27.54	C
ATOM 10811	O	ILE C 409	-1.668	110.954	91.354	1.00	28.11	O
ATOM 10812	N	LYS C 410	0.259	110.098	92.134	1.00	28.09	N
ATOM 10814	CA	LYS C 410	1.047	110.546	90.980	1.00	28.82	C
ATOM 10816	CB	LYS C 410	2.559	110.495	91.278	1.00	28.98	C
ATOM 10819	CG	LYS C 410	3.403	111.356	90.321	1.00	30.02	C
ATOM 10822	CD	LYS C 410	4.840	110.867	90.222	1.00	30.46	C
ATOM 10825	CE	LYS C 410	5.799	111.947	89.723	1.00	31.05	C
ATOM 10828	NZ	LYS C 410	7.240	111.551	89.853	1.00	29.84	N
ATOM 10832	C	LYS C 410	0.712	109.774	89.692	1.00	28.70	C
ATOM 10833	O	LYS C 410	0.346	110.385	88.709	1.00	29.01	O
ATOM 10834	N	ARG C 411	0.867	108.449	89.701	1.00	28.92	N
ATOM 10836	CA	ARG C 411	0.430	107.583	88.601	1.00	29.15	C
ATOM 10838	CB	ARG C 411	1.606	106.837	87.950	1.00	29.26	C
ATOM 10841	CG	ARG C 411	2.899	107.622	87.784	1.00	30.52	C
ATOM 10844	CD	ARG C 411	3.182	108.149	86.369	1.00	31.58	C
ATOM 10847	NE	ARG C 411	3.796	109.475	86.457	1.00	33.05	N
ATOM 10849	CZ	ARG C 411	3.974	110.310	85.441	1.00	33.60	C
ATOM 10850	NH1	ARG C 411	3.616	109.968	84.209	1.00	33.77	N
ATOM 10853	NH2	ARG C 411	4.534	111.498	85.663	1.00	34.14	N
ATOM 10856	C	ARG C 411	-0.590	106.549	89.094	1.00	29.28	C
ATOM 10857	O	ARG C 411	-0.255	105.380	89.239	1.00	29.32	O

ATOM 10858	N	PRO C 412	-1.824	106.966	89.355	1.00	29.53	N
ATOM 10859	CA	PRO C 412	-2.879	106.030	89.763	1.00	29.86	C
ATOM 10861	CB	PRO C 412	-4.163	106.873	89.649	1.00	29.93	C
ATOM 10864	CG	PRO C 412	-3.753	108.184	89.010	1.00	29.82	C
ATOM 10867	CD	PRO C 412	-2.313	108.356	89.323	1.00	29.66	C
ATOM 10870	C	PRO C 412	-3.001	104.756	88.908	1.00	30.29	C
ATOM 10871	O	PRO C 412	-3.254	103.676	89.450	1.00	30.16	O
ATOM 10872	N	GLN C 413	-2.825	104.874	87.596	1.00	30.80	N
ATOM 10874	CA	GLN C 413	-2.992	103.731	86.706	1.00	31.04	C
ATOM 10876	CB	GLN C 413	-3.915	104.115	85.539	1.00	31.05	C
ATOM 10879	CG	GLN C 413	-5.426	103.950	85.866	1.00	30.71	C
ATOM 10882	CD	GLN C 413	-6.187	105.272	85.930	1.00	30.28	C
ATOM 10883	OE1	GLN C 413	-6.175	105.957	86.959	1.00	29.01	O
ATOM 10884	NE2	GLN C 413	-6.862	105.622	84.834	1.00	29.34	N
ATOM 10887	C	GLN C 413	-1.634	103.130	86.260	1.00	31.55	C
ATOM 10888	O	GLN C 413	-1.438	102.784	85.091	1.00	31.41	O
ATOM 10889	N	ASP C 414	-0.708	103.024	87.225	1.00	31.99	N
ATOM 10891	CA	ASP C 414	0.502	102.201	87.115	1.00	32.28	C
ATOM 10893	CB	ASP C 414	1.693	102.973	86.522	1.00	32.58	C
ATOM 10896	CG	ASP C 414	2.975	102.105	86.405	1.00	33.35	C
ATOM 10897	OD1	ASP C 414	2.879	100.856	86.272	1.00	33.13	O
ATOM 10898	OD2	ASP C 414	4.128	102.585	86.433	1.00	34.30	O
ATOM 10899	C	ASP C 414	0.852	101.696	88.509	1.00	32.43	C
ATOM 10900	O	ASP C 414	1.710	102.258	89.188	1.00	32.08	O
ATOM 10901	N	GLN C 415	0.174	100.631	88.924	1.00	32.65	N
ATOM 10903	CA	GLN C 415	0.314	100.093	90.274	1.00	32.99	C
ATOM 10905	CB	GLN C 415	-0.656	98.927	90.491	1.00	33.51	C
ATOM 10908	CG	GLN C 415	-2.143	99.269	90.401	1.00	34.79	C
ATOM 10911	CD	GLN C 415	-3.020	98.074	90.764	1.00	36.38	C
ATOM 10912	OE1	GLN C 415	-3.260	97.819	91.951	1.00	38.72	O
ATOM 10913	NE2	GLN C 415	-3.474	97.330	89.755	1.00	35.09	N
ATOM 10916	C	GLN C 415	1.722	99.590	90.587	1.00	32.61	C
ATOM 10917	O	GLN C 415	2.129	99.584	91.743	1.00	32.42	O
ATOM 10918	N	LEU C 416	2.454	99.160	89.565	1.00	32.30	N
ATOM 10920	CA	LEU C 416	3.753	98.527	89.771	1.00	32.17	C
ATOM 10922	CB	LEU C 416	4.034	97.516	88.657	1.00	32.29	C
ATOM 10925	CG	LEU C 416	2.979	96.416	88.479	1.00	32.42	C
ATOM 10927	CD1	LEU C 416	3.251	95.656	87.204	1.00	33.06	C
ATOM 10931	CD2	LEU C 416	2.945	95.460	89.664	1.00	32.56	C
ATOM 10935	C	LEU C 416	4.919	99.516	89.890	1.00	31.82	C
ATOM 10936	O	LEU C 416	6.051	99.101	90.125	1.00	32.18	O
ATOM 10937	N	ARG C 417	4.659	100.810	89.747	1.00	31.15	N
ATOM 10939	CA	ARG C 417	5.718	101.799	89.922	1.00	30.76	C
ATOM 10941	CB	ARG C 417	5.213	103.220	89.686	1.00	30.88	C
ATOM 10944	CG	ARG C 417	5.774	103.872	88.419	1.00	32.56	C
ATOM 10947	CD	ARG C 417	6.769	104.984	88.659	1.00	33.06	C
ATOM 10950	NE	ARG C 417	6.167	106.036	89.465	1.00	33.10	N
ATOM 10952	CZ	ARG C 417	6.705	107.226	89.671	1.00	32.51	C

ATOM 10953	NH1 ARG C 417	7.871	107.568	89.131	1.00	32.25	N
ATOM 10956	NH2 ARG C 417	6.069	108.083	90.440	1.00	32.59	N
ATOM 10959	C ARG C 417	6.270	101.708	91.326	1.00	29.89	C
ATOM 10960	O ARG C 417	7.484	101.677	91.523	1.00	29.82	O
ATOM 10961	N PHE C 418	5.370	101.677	92.304	1.00	28.71	N
ATOM 10963	CA PHE C 418	5.785	101.604	93.696	1.00	27.67	C
ATOM 10965	CB PHE C 418	4.577	101.748	94.635	1.00	27.27	C
ATOM 10968	CG PHE C 418	4.925	101.628	96.091	1.00	27.01	C
ATOM 10969	CD1 PHE C 418	5.796	102.527	96.686	1.00	25.81	C
ATOM 10971	CE1 PHE C 418	6.115	102.414	98.026	1.00	25.84	C
ATOM 10973	CZ PHE C 418	5.574	101.394	98.780	1.00	24.52	C
ATOM 10975	CE2 PHE C 418	4.721	100.493	98.194	1.00	25.16	C
ATOM 10977	CD2 PHE C 418	4.397	100.607	96.864	1.00	26.05	C
ATOM 10979	C PHE C 418	6.622	100.325	93.959	1.00	27.10	C
ATOM 10980	O PHE C 418	7.792	100.429	94.329	1.00	26.14	O
ATOM 10981	N PRO C 419	6.060	99.135	93.738	1.00	26.80	N
ATOM 10982	CA PRO C 419	6.844	97.900	93.856	1.00	26.96	C
ATOM 10984	CB PRO C 419	5.977	96.874	93.134	1.00	27.01	C
ATOM 10987	CG PRO C 419	4.610	97.353	93.378	1.00	27.08	C
ATOM 10990	CD PRO C 419	4.664	98.843	93.378	1.00	26.62	C
ATOM 10993	C PRO C 419	8.223	97.993	93.211	1.00	26.84	C
ATOM 10994	O PRO C 419	9.203	97.658	93.860	1.00	26.82	O
ATOM 10995	N ARG C 420	8.299	98.496	91.987	1.00	26.73	N
ATOM 10997	CA ARG C 420	9.570	98.571	91.276	1.00	27.04	C
ATOM 10999	CB ARG C 420	9.361	99.034	89.840	1.00	27.39	C
ATOM 11002	CG ARG C 420	8.656	98.054	88.947	1.00	27.46	C
ATOM 11005	CD ARG C 420	8.183	98.684	87.646	1.00	29.39	C
ATOM 11008	NE ARG C 420	7.317	97.784	86.889	1.00	31.22	N
ATOM 11010	CZ ARG C 420	6.565	98.143	85.847	1.00	31.95	C
ATOM 11011	NH1 ARG C 420	6.554	99.402	85.396	1.00	31.78	N
ATOM 11014	NH2 ARG C 420	5.809	97.228	85.249	1.00	31.90	N
ATOM 11017	C ARG C 420	10.562	99.498	91.959	1.00	26.91	C
ATOM 11018	O ARG C 420	11.759	99.239	91.949	1.00	26.33	O
ATOM 11019	N MET C 421	10.060	100.578	92.549	1.00	27.61	N
ATOM 11021	CA MET C 421	10.885	101.478	93.363	1.00	27.93	C
ATOM 11023	CB MET C 421	10.045	102.620	93.907	1.00	28.32	C
ATOM 11026	CG MET C 421	9.688	103.654	92.883	1.00	30.21	C
ATOM 11029	SD MET C 421	8.716	104.966	93.627	1.00	32.58	S
ATOM 11030	CE MET C 421	9.940	105.809	94.482	1.00	33.19	C
ATOM 11034	C MET C 421	11.521	100.734	94.534	1.00	27.79	C
ATOM 11035	O MET C 421	12.722	100.836	94.760	1.00	27.73	O
ATOM 11036	N LEU C 422	10.708	99.989	95.274	1.00	27.78	N
ATOM 11038	CA LEU C 422	11.202	99.217	96.408	1.00	27.79	C
ATOM 11040	CB LEU C 422	10.043	98.588	97.169	1.00	27.66	C
ATOM 11043	CG LEU C 422	9.063	99.511	97.880	1.00	26.55	C
ATOM 11045	CD1 LEU C 422	8.090	98.660	98.651	1.00	26.95	C
ATOM 11049	CD2 LEU C 422	9.751	100.480	98.795	1.00	26.39	C
ATOM 11053	C LEU C 422	12.150	98.114	95.956	1.00	28.12	C

ATOM 11054	O	LEU C 422	13.132	97.809	96.633	1.00	28.59	O
ATOM 11055	N	MET C 423	11.870	97.534	94.798	1.00	28.33	N
ATOM 11057	CA	MET C 423	12.715	96.483	94.237	1.00	28.41	C
ATOM 11059	CB	MET C 423	12.081	95.934	92.979	1.00	28.75	C
ATOM 11062	CG	MET C 423	10.748	95.268	93.212	1.00	30.50	C
ATOM 11065	SD	MET C 423	10.930	93.534	93.490	1.00	35.50	S
ATOM 11066	CE	MET C 423	9.884	92.827	92.200	1.00	34.00	C
ATOM 11070	C	MET C 423	14.131	96.976	93.913	1.00	28.15	C
ATOM 11071	O	MET C 423	15.063	96.182	93.805	1.00	28.57	O
ATOM 11072	N	LYS C 424	14.294	98.281	93.741	1.00	27.55	N
ATOM 11074	CA	LYS C 424	15.600	98.847	93.450	1.00	26.88	C
ATOM 11076	CB	LYS C 424	15.454	100.193	92.735	1.00	27.25	C
ATOM 11079	CG	LYS C 424	14.701	100.076	91.386	1.00	27.60	C
ATOM 11082	CD	LYS C 424	15.579	99.556	90.226	1.00	27.94	C
ATOM 11085	CE	LYS C 424	14.719	98.805	89.211	1.00	28.39	C
ATOM 11088	NZ	LYS C 424	15.410	98.585	87.902	1.00	29.25	N
ATOM 11092	C	LYS C 424	16.436	98.973	94.707	1.00	26.24	C
ATOM 11093	O	LYS C 424	17.655	99.041	94.625	1.00	26.48	O
ATOM 11094	N	LEU C 425	15.791	99.003	95.872	1.00	25.14	N
ATOM 11096	CA	LEU C 425	16.506	98.866	97.129	1.00	24.15	C
ATOM 11098	CB	LEU C 425	15.567	99.077	98.337	1.00	23.90	C
ATOM 11101	CG	LEU C 425	14.860	100.426	98.511	1.00	23.74	C
ATOM 11103	CD1	LEU C 425	14.053	100.418	99.797	1.00	24.76	C
ATOM 11107	CD2	LEU C 425	15.812	101.618	98.508	1.00	22.52	C
ATOM 11111	C	LEU C 425	17.197	97.482	97.189	1.00	23.59	C
ATOM 11112	O	LEU C 425	18.274	97.338	97.784	1.00	23.14	O
ATOM 11113	N	VAL C 426	16.573	96.479	96.582	1.00	23.08	N
ATOM 11115	CA	VAL C 426	17.171	95.149	96.491	1.00	23.43	C
ATOM 11117	CB	VAL C 426	16.246	94.123	95.795	1.00	22.81	C
ATOM 11119	CG1	VAL C 426	16.890	92.781	95.767	1.00	22.20	C
ATOM 11123	CG2	VAL C 426	14.924	94.020	96.482	1.00	22.82	C
ATOM 11127	C	VAL C 426	18.462	95.224	95.683	1.00	24.42	C
ATOM 11128	O	VAL C 426	19.526	94.762	96.105	1.00	24.43	O
ATOM 11129	N	SER C 427	18.359	95.812	94.502	1.00	25.52	N
ATOM 11131	CA	SER C 427	19.505	95.924	93.622	1.00	26.19	C
ATOM 11133	CB	SER C 427	19.065	96.482	92.262	1.00	26.30	C
ATOM 11136	OG	SER C 427	18.360	95.477	91.533	1.00	26.75	O
ATOM 11138	C	SER C 427	20.618	96.763	94.264	1.00	26.49	C
ATOM 11139	O	SER C 427	21.786	96.499	94.041	1.00	26.75	O
ATOM 11140	N	LEU C 428	20.245	97.742	95.084	1.00	26.85	N
ATOM 11142	CA	LEU C 428	21.201	98.598	95.801	1.00	27.26	C
ATOM 11144	CB	LEU C 428	20.470	99.730	96.531	1.00	27.07	C
ATOM 11147	CG	LEU C 428	20.240	101.034	95.800	1.00	27.26	C
ATOM 11149	CD1	LEU C 428	19.184	101.845	96.516	1.00	27.13	C
ATOM 11153	CD2	LEU C 428	21.552	101.814	95.667	1.00	27.93	C
ATOM 11157	C	LEU C 428	22.017	97.855	96.854	1.00	27.70	C
ATOM 11158	O	LEU C 428	23.140	98.254	97.162	1.00	27.62	O
ATOM 11159	N	ARG C 429	21.425	96.826	97.457	1.00	28.50	N

147

ATOM 11161	CA	ARG C 429	22.133	96.012	98.453	1.00	29.02	C
ATOM 11163	CB	ARG C 429	21.210	94.976	99.098	1.00	29.00	C
ATOM 11166	CG	ARG C 429	20.383	95.471	100.213	1.00	28.11	C
ATOM 11169	CD	ARG C 429	21.178	96.085	101.350	1.00	28.39	C
ATOM 11172	NE	ARG C 429	20.346	97.046	102.056	1.00	27.41	N
ATOM 11174	CZ	ARG C 429	19.451	96.727	102.963	1.00	28.85	C
ATOM 11175	NH1	ARG C 429	19.265	95.468	103.322	1.00	31.15	N
ATOM 11178	NH2	ARG C 429	18.738	97.673	103.537	1.00	30.76	N
ATOM 11181	C	ARG C 429	23.287	95.272	97.821	1.00	29.62	C
ATOM 11182	O	ARG C 429	24.364	95.222	98.392	1.00	29.89	O
ATOM 11183	N	THR C 430	23.046	94.695	96.647	1.00	30.50	N
ATOM 11185	CA	THR C 430	24.082	93.960	95.920	1.00	31.56	C
ATOM 11187	CB	THR C 430	23.477	93.160	94.730	1.00	31.43	C
ATOM 11189	OG1	THR C 430	22.265	92.503	95.126	1.00	31.34	O
ATOM 11191	CG2	THR C 430	24.389	92.000	94.338	1.00	31.71	C
ATOM 11195	C	THR C 430	25.168	94.907	95.409	1.00	32.38	C
ATOM 11196	O	THR C 430	26.358	94.618	95.511	1.00	32.48	O
ATOM 11197	N	LEU C 431	24.738	96.043	94.873	1.00	33.48	N
ATOM 11199	CA	LEU C 431	25.643	97.033	94.289	1.00	34.20	C
ATOM 11201	CB	LEU C 431	24.832	98.140	93.596	1.00	34.11	C
ATOM 11204	CG	LEU C 431	25.343	98.822	92.324	1.00	33.49	C
ATOM 11206	CD1	LEU C 431	26.590	98.178	91.752	1.00	33.07	C
ATOM 11210	CD2	LEU C 431	24.240	98.866	91.285	1.00	33.37	C
ATOM 11214	C	LEU C 431	26.536	97.643	95.365	1.00	35.06	C
ATOM 11215	O	LEU C 431	27.692	97.982	95.111	1.00	35.38	O
ATOM 11216	N	SER C 432	25.988	97.769	96.568	1.00	35.73	N
ATOM 11218	CA	SER C 432	26.733	98.282	97.704	1.00	36.37	C
ATOM 11220	CB	SER C 432	25.800	98.485	98.901	1.00	36.43	C
ATOM 11223	OG	SER C 432	26.504	98.406	100.127	1.00	36.57	O
ATOM 11225	C	SER C 432	27.868	97.327	98.071	1.00	36.97	C
ATOM 11226	O	SER C 432	28.969	97.770	98.394	1.00	37.30	O
ATOM 11227	N	SER C 433	27.601	96.022	98.016	1.00	37.48	N
ATOM 11229	CA	SER C 433	28.627	95.009	98.299	1.00	37.95	C
ATOM 11231	CB	SER C 433	27.995	93.618	98.379	1.00	37.93	C
ATOM 11234	OG	SER C 433	28.968	92.652	98.721	1.00	37.61	O
ATOM 11236	C	SER C 433	29.790	94.991	97.291	1.00	38.16	C
ATOM 11237	O	SER C 433	30.820	94.381	97.553	1.00	38.14	O
ATOM 11238	N	VAL C 434	29.607	95.651	96.147	1.00	38.84	N
ATOM 11240	CA	VAL C 434	30.666	95.848	95.138	1.00	39.27	C
ATOM 11242	CB	VAL C 434	30.044	96.250	93.744	1.00	39.17	C
ATOM 11244	CG1	VAL C 434	30.315	97.718	93.380	1.00	39.12	C
ATOM 11248	CG2	VAL C 434	30.531	95.330	92.633	1.00	39.40	C
ATOM 11252	C	VAL C 434	31.725	96.891	95.561	1.00	39.80	C
ATOM 11253	O	VAL C 434	32.823	96.916	95.006	1.00	39.88	O
ATOM 11254	N	HIS C 435	31.382	97.751	96.525	1.00	40.41	N
ATOM 11256	CA	HIS C 435	32.263	98.832	96.992	1.00	40.75	C
ATOM 11258	CB	HIS C 435	31.502	99.758	97.954	1.00	41.04	C
ATOM 11261	CG	HIS C 435	32.197	101.061	98.230	1.00	41.83	C

148

ATOM 11262	ND1 HIS C 435	32.204	101.650	99.477	1.00	43.00	N
ATOM 11264	CE1 HIS C 435	32.880	102.784	99.426	1.00	42.90	C
ATOM 11266	NE2 HIS C 435	33.310	102.954	98.189	1.00	42.88	N
ATOM 11268	CD2 HIS C 435	32.895	101.892	97.420	1.00	42.60	C
ATOM 11270	C HIS C 435	33.530	98.341	97.683	1.00	40.75	C
ATOM 11271	O HIS C 435	34.607	98.910	97.479	1.00	40.64	O
ATOM 11272	N SER C 436	33.394	97.313	98.519	1.00	40.83	N
ATOM 11274	CA SER C 436	34.549	96.701	99.182	1.00	40.81	C
ATOM 11276	CB SER C 436	34.139	95.418	99.918	1.00	40.91	C
ATOM 11279	OG SER C 436	34.193	94.289	99.059	1.00	40.56	O
ATOM 11281	C SER C 436	35.655	96.390	98.176	1.00	40.74	C
ATOM 11282	O SER C 436	36.814	96.743	98.390	1.00	40.71	O
ATOM 11283	N GLU C 437	35.268	95.763	97.066	1.00	40.74	N
ATOM 11285	CA GLU C 437	36.197	95.305	96.030	1.00	40.71	C
ATOM 11287	CB GLU C 437	35.425	94.739	94.828	1.00	40.67	C
ATOM 11290	CG GLU C 437	34.469	93.593	95.137	1.00	40.23	C
ATOM 11293	CD GLU C 437	34.106	92.800	93.896	1.00	39.60	C
ATOM 11294	OE1 GLU C 437	33.001	93.005	93.346	1.00	38.73	O
ATOM 11295	OE2 GLU C 437	34.936	91.976	93.465	1.00	38.66	O
ATOM 11296	C GLU C 437	37.138	96.401	95.522	1.00	40.81	C
ATOM 11297	O GLU C 437	38.340	96.162	95.354	1.00	40.76	O
ATOM 11298	N GLN C 438	36.585	97.589	95.268	1.00	40.83	N
ATOM 11300	CA GLN C 438	37.337	98.683	94.638	1.00	40.82	C
ATOM 11302	CB GLN C 438	36.410	99.883	94.373	1.00	40.70	C
ATOM 11305	CG GLN C 438	37.068	101.099	93.691	1.00	40.71	C
ATOM 11308	CD GLN C 438	38.002	100.735	92.534	1.00	40.27	C
ATOM 11309	OE1 GLN C 438	37.560	100.554	91.396	1.00	39.98	O
ATOM 11310	NE2 GLN C 438	39.293	100.640	92.827	1.00	39.83	N
ATOM 11313	C GLN C 438	38.566	99.108	95.459	1.00	40.82	C
ATOM 11314	O GLN C 438	39.710	98.822	95.082	1.00	40.52	O
ATOM 11315	N LEU D 220	-8.763	88.448	91.008	1.00	28.95	N
ATOM 11317	CA LEU D 220	-7.657	87.934	90.143	1.00	29.15	C
ATOM 11319	CB LEU D 220	-6.902	86.806	90.853	1.00	29.27	C
ATOM 11322	CG LEU D 220	-5.432	87.114	91.167	1.00	29.73	C
ATOM 11324	CD1 LEU D 220	-4.849	86.119	92.161	1.00	29.41	C
ATOM 11328	CD2 LEU D 220	-4.615	87.140	89.884	1.00	30.06	C
ATOM 11332	C LEU D 220	-8.182	87.431	88.804	1.00	29.19	C
ATOM 11333	O LEU D 220	-9.391	87.338	88.604	1.00	29.21	O
ATOM 11336	N THR D 221	-7.256	87.099	87.902	1.00	29.27	N
ATOM 11338	CA THR D 221	-7.575	86.615	86.554	1.00	29.28	C
ATOM 11340	CB THR D 221	-6.913	87.534	85.479	1.00	29.32	C
ATOM 11342	OG1 THR D 221	-5.692	88.106	85.984	1.00	28.79	O
ATOM 11344	CG2 THR D 221	-7.801	88.749	85.171	1.00	29.41	C
ATOM 11348	C THR D 221	-7.143	85.150	86.365	1.00	29.28	C
ATOM 11349	O THR D 221	-6.549	84.553	87.258	1.00	29.18	O
ATOM 11350	N ALA D 222	-7.456	84.577	85.203	1.00	29.31	N
ATOM 11352	CA ALA D 222	-7.181	83.159	84.924	1.00	29.35	C
ATOM 11354	CB ALA D 222	-7.804	82.757	83.551	1.00	29.22	C

ATOM 11358	C	ALA D 222	-5.656	82.809	84.958	1.00	29.44	C
ATOM 11359	O	ALA D 222	-5.157	81.752	85.705	1.00	29.16	O
ATOM 11360	N	ALA D 223	-4.904	83.701	84.215	1.00	29.57	N
ATOM 11362	CA	ALA D 223	-3.496	83.431	83.921	1.00	29.62	C
ATOM 11364	CB	ALA D 223	-2.932	84.505	82.983	1.00	29.57	C
ATOM 11368	C	ALA D 223	-2.641	83.330	85.176	1.00	29.86	C
ATOM 11369	O	ALA D 223	-1.436	83.076	85.086	1.00	30.12	O
ATOM 11370	N	GLN D 224	-3.268	83.533	86.336	1.00	29.94	N
ATOM 11372	CA	GLN D 224	-2.600	83.477	87.627	1.00	29.72	C
ATOM 11374	CB	GLN D 224	-2.680	84.855	88.269	1.00	29.66	C
ATOM 11377	CG	GLN D 224	-1.781	85.888	87.593	1.00	29.31	C
ATOM 11380	CD	GLN D 224	-2.541	87.109	87.102	1.00	29.38	C
ATOM 11381	OE1	GLN D 224	-3.157	87.082	86.012	1.00	29.53	O
ATOM 11382	NE2	GLN D 224	-2.494	88.193	87.890	1.00	27.96	N
ATOM 11385	C	GLN D 224	-3.196	82.396	88.546	1.00	29.88	C
ATOM 11386	O	GLN D 224	-2.456	81.694	89.234	1.00	29.66	O
ATOM 11387	N	GLU D 225	-4.521	82.258	88.555	1.00	30.07	N
ATOM 11389	CA	GLU D 225	-5.187	81.167	89.275	1.00	30.33	C
ATOM 11391	CB	GLU D 225	-6.682	81.152	88.950	1.00	30.40	C
ATOM 11394	CG	GLU D 225	-7.461	82.282	89.610	1.00	30.36	C
ATOM 11397	CD	GLU D 225	-8.667	82.737	88.804	1.00	30.17	C
ATOM 11398	OE1	GLU D 225	-8.979	82.129	87.758	1.00	29.85	O
ATOM 11399	OE2	GLU D 225	-9.309	83.721	89.223	1.00	30.32	O
ATOM 11400	C	GLU D 225	-4.571	79.807	88.932	1.00	30.57	C
ATOM 11401	O	GLU D 225	-4.378	78.965	89.810	1.00	30.67	O
ATOM 11402	N	LEU D 226	-4.276	79.602	87.650	1.00	30.89	N
ATOM 11404	CA	LEU D 226	-3.532	78.429	87.191	1.00	31.09	C
ATOM 11406	CB	LEU D 226	-3.299	78.511	85.679	1.00	31.16	C
ATOM 11409	CG	LEU D 226	-2.287	77.542	85.052	1.00	31.34	C
ATOM 11411	CD1	LEU D 226	-2.850	76.125	85.020	1.00	31.59	C
ATOM 11415	CD2	LEU D 226	-1.896	77.993	83.645	1.00	31.34	C
ATOM 11419	C	LEU D 226	-2.185	78.349	87.893	1.00	31.35	C
ATOM 11420	O	LEU D 226	-1.809	77.305	88.432	1.00	31.20	O
ATOM 11421	N	MET D 227	-1.470	79.472	87.869	1.00	31.59	N
ATOM 11423	CA	MET D 227	-0.083	79.541	88.320	1.00	31.75	C
ATOM 11425	CB	MET D 227	0.609	80.786	87.720	1.00	31.89	C
ATOM 11428	CG	MET D 227	0.860	81.966	88.690	1.00	32.31	C
ATOM 11431	SD	MET D 227	1.984	83.226	88.025	1.00	33.24	S
ATOM 11432	CE	MET D 227	1.224	83.647	86.440	1.00	33.06	C
ATOM 11436	C	MET D 227	0.098	79.497	89.844	1.00	31.85	C
ATOM 11437	O	MET D 227	1.213	79.295	90.315	1.00	31.82	O
ATOM 11438	N	ILE D 228	-0.974	79.686	90.610	1.00	31.96	N
ATOM 11440	CA	ILE D 228	-0.854	79.727	92.071	1.00	32.04	C
ATOM 11442	CB	ILE D 228	-1.987	80.566	92.719	1.00	31.92	C
ATOM 11444	CG1	ILE D 228	-1.576	82.037	92.779	1.00	31.37	C
ATOM 11447	CD1	ILE D 228	-2.743	82.991	92.849	1.00	31.33	C
ATOM 11451	CG2	ILE D 228	-2.328	80.067	94.127	1.00	31.73	C
ATOM 11455	C	ILE D 228	-0.827	78.305	92.614	1.00	32.37	C

150

ATOM 11456	O	ILE D 228	-0.010	77.988	93.473	1.00	32.44	O
ATOM 11457	N	GLN D 229	-1.714	77.453	92.103	1.00	32.56	N
ATOM 11459	CA	GLN D 229	-1.733	76.043	92.487	1.00	32.78	C
ATOM 11461	CB	GLN D 229	-2.996	75.356	91.906	1.00	32.76	C
ATOM 11464	CG	GLN D 229	-4.335	75.978	92.370	1.00	32.71	C
ATOM 11467	CD	GLN D 229	-4.744	75.524	93.763	1.00	32.75	C
ATOM 11468	OE1	GLN D 229	-3.936	75.563	94.700	1.00	31.80	O
ATOM 11469	NE2	GLN D 229	-5.999	75.096	93.907	1.00	32.33	N
ATOM 11472	C	GLN D 229	-0.440	75.350	91.982	1.00	33.05	C
ATOM 11473	O	GLN D 229	0.135	74.327	92.656	1.00	33.15	O
ATOM 11474	N	GLN D 230	0.009	75.921	90.794	1.00	33.39	N
ATOM 11476	CA	GLN D 230	1.166	75.417	90.043	1.00	33.55	C
ATOM 11478	CB	GLN D 230	1.445	76.289	88.805	1.00	33.67	C
ATOM 11481	CG	GLN D 230	1.826	75.540	87.551	1.00	33.91	C
ATOM 11484	CD	GLN D 230	1.364	76.276	86.300	1.00	34.51	C
ATOM 11485	OE1	GLN D 230	1.819	77.391	86.028	1.00	34.49	O
ATOM 11486	NE2	GLN D 230	0.447	75.665	85.549	1.00	34.29	N
ATOM 11489	C	GLN D 230	2.374	75.467	90.930	1.00	33.43	C
ATOM 11490	O	GLN D 230	3.046	74.460	91.141	1.00	33.59	O
ATOM 11491	N	LEU D 231	2.641	76.661	91.446	1.00	33.40	N
ATOM 11493	CA	LEU D 231	3.781	76.875	92.309	1.00	33.21	C
ATOM 11495	CB	LEU D 231	3.998	78.379	92.575	1.00	33.18	C
ATOM 11498	CG	LEU D 231	4.273	79.265	91.346	1.00	32.99	C
ATOM 11500	CD1	LEU D 231	4.425	80.740	91.736	1.00	32.52	C
ATOM 11504	CD2	LEU D 231	5.499	78.784	90.569	1.00	32.74	C
ATOM 11508	C	LEU D 231	3.570	76.087	93.601	1.00	33.15	C
ATOM 11509	O	LEU D 231	4.533	75.557	94.139	1.00	33.50	O
ATOM 11510	N	VAL D 232	2.320	75.969	94.067	1.00	32.97	N
ATOM 11512	CA	VAL D 232	2.039	75.248	95.312	1.00	33.17	C
ATOM 11514	CB	VAL D 232	0.587	75.455	95.820	1.00	33.06	C
ATOM 11516	CG1	VAL D 232	0.318	74.585	97.064	1.00	32.90	C
ATOM 11520	CG2	VAL D 232	0.338	76.935	96.158	1.00	33.46	C
ATOM 11524	C	VAL D 232	2.312	73.759	95.151	1.00	33.28	C
ATOM 11525	O	VAL D 232	3.141	73.202	95.853	1.00	33.14	O
ATOM 11526	N	ALA D 233	1.614	73.126	94.212	1.00	34.04	N
ATOM 11528	CA	ALA D 233	1.718	71.673	93.992	1.00	34.23	C
ATOM 11530	CB	ALA D 233	0.815	71.259	92.862	1.00	34.35	C
ATOM 11534	C	ALA D 233	3.154	71.166	93.734	1.00	34.53	C
ATOM 11535	O	ALA D 233	3.554	70.076	94.230	1.00	34.76	O
ATOM 11536	N	ALA D 234	3.918	71.973	92.977	1.00	34.74	N
ATOM 11538	CA	ALA D 234	5.344	71.719	92.709	1.00	35.05	C
ATOM 11540	CB	ALA D 234	5.809	72.619	91.577	1.00	35.03	C
ATOM 11544	C	ALA D 234	6.262	71.908	93.946	1.00	35.58	C
ATOM 11545	O	ALA D 234	7.262	71.194	94.097	1.00	35.16	O
ATOM 11546	N	GLN D 235	5.930	72.871	94.806	1.00	36.15	N
ATOM 11548	CA	GLN D 235	6.654	73.071	96.071	1.00	36.99	C
ATOM 11550	CB	GLN D 235	6.310	74.438	96.707	1.00	36.87	C
ATOM 11553	CG	GLN D 235	6.970	74.686	98.075	1.00	37.19	C

151

ATOM 11556	CD GLN D 235	7.619	76.055	98.190	1.00	37.14	C
ATOM 11557	OE1 GLN D 235	6.965	77.073	97.965	1.00	37.04	O
ATOM 11558	NE2 GLN D 235	8.903	76.083	98.550	1.00	37.27	N
ATOM 11561	C GLN D 235	6.390	71.925	97.062	1.00	37.60	C
ATOM 11562	O GLN D 235	7.248	71.619	97.899	1.00	37.51	O
ATOM 11563	N LEU D 236	5.222	71.282	96.949	1.00	38.43	N
ATOM 11565	CA LEU D 236	4.860	70.192	97.864	1.00	39.26	C
ATOM 11567	CB LEU D 236	3.338	70.064	97.978	1.00	39.43	C
ATOM 11570	CG LEU D 236	2.567	71.306	98.443	1.00	39.79	C
ATOM 11572	CD1 LEU D 236	1.064	71.102	98.223	1.00	39.92	C
ATOM 11576	CD2 LEU D 236	2.871	71.655	99.893	1.00	39.80	C
ATOM 11580	C LEU D 236	5.452	68.850	97.430	1.00	39.81	C
ATOM 11581	O LEU D 236	5.643	67.956	98.261	1.00	39.67	O
ATOM 11582	N GLN D 237	5.726	68.711	96.131	1.00	40.68	N
ATOM 11584	CA GLN D 237	6.315	67.489	95.579	1.00	41.25	C
ATOM 11586	CB GLN D 237	5.821	67.226	94.145	1.00	41.13	C
ATOM 11589	CG GLN D 237	6.585	67.935	93.017	1.00	40.75	C
ATOM 11592	CD GLN D 237	5.844	67.883	91.677	1.00	40.51	C
ATOM 11593	OE1 GLN D 237	6.027	68.757	90.814	1.00	39.72	O
ATOM 11594	NE2 GLN D 237	5.012	66.857	91.504	1.00	40.17	N
ATOM 11597	C GLN D 237	7.841	67.546	95.654	1.00	42.10	C
ATOM 11598	O GLN D 237	8.510	66.563	95.380	1.00	42.26	O
ATOM 11599	N CYS D 238	8.380	68.711	96.004	1.00	43.04	N
ATOM 11601	CA CYS D 238	9.770	68.823	96.432	1.00	43.87	C
ATOM 11603	CB CYS D 238	10.309	70.236	96.159	1.00	43.91	C
ATOM 11606	SG CYS D 238	10.457	70.656	94.396	1.00	45.75	S
ATOM 11607	C CYS D 238	9.826	68.500	97.928	1.00	44.20	C
ATOM 11608	O CYS D 238	10.759	67.856	98.409	1.00	44.25	O
ATOM 11609	N ASN D 239	8.806	68.945	98.654	1.00	44.70	N
ATOM 11611	CA ASN D 239	8.702	68.694	100.086	1.00	45.10	C
ATOM 11613	CB ASN D 239	7.436	69.347	100.642	1.00	45.18	C
ATOM 11616	CG ASN D 239	7.578	69.744	102.095	1.00	45.80	C
ATOM 11617	OD1 ASN D 239	7.843	68.902	102.957	1.00	47.36	O
ATOM 11618	ND2 ASN D 239	7.398	71.032	102.377	1.00	45.05	N
ATOM 11621	C ASN D 239	8.682	67.208	100.414	1.00	45.50	C
ATOM 11622	O ASN D 239	9.311	66.770	101.377	1.00	45.49	O
ATOM 11623	N LYS D 240	7.960	66.444	99.594	1.00	46.10	N
ATOM 11625	CA LYS D 240	7.731	65.027	99.833	1.00	46.33	C
ATOM 11627	CB LYS D 240	6.397	64.592	99.208	1.00	46.56	C
ATOM 11630	CG LYS D 240	5.141	65.058	99.956	1.00	46.25	C
ATOM 11633	CD LYS D 240	3.856	64.551	99.264	1.00	45.65	C
ATOM 11636	CE LYS D 240	3.156	63.437	100.044	1.00	45.11	C
ATOM 11639	NZ LYS D 240	1.688	63.399	99.770	1.00	44.72	N
ATOM 11643	C LYS D 240	8.871	64.208	99.233	1.00	46.68	C
ATOM 11644	O LYS D 240	9.504	63.410	99.925	1.00	46.55	O
ATOM 11645	N ARG D 241	9.114	64.416	97.936	1.00	47.01	N
ATOM 11647	CA ARG D 241	10.142	63.696	97.173	1.00	47.21	C
ATOM 11649	CB ARG D 241	10.492	64.483	95.897	1.00	47.16	C

152

ATOM 11652	CG ARG D 241	11.627	63.918	95.045	1.00	46.82	C
ATOM 11655	CD ARG D 241	11.567	64.331	93.563	1.00	46.58	C
ATOM 11658	NE ARG D 241	12.364	63.442	92.710	1.00	46.17	N
ATOM 11660	CZ ARG D 241	12.307	63.393	91.377	1.00	45.75	C
ATOM 11661	NH1 ARG D 241	11.483	64.181	90.689	1.00	45.44	N
ATOM 11664	NH2 ARG D 241	13.089	62.543	90.720	1.00	45.82	N
ATOM 11667	C ARG D 241	11.397	63.436	98.007	1.00	47.55	C
ATOM 11668	O ARG D 241	11.920	62.313	98.024	1.00	47.59	O
ATOM 11669	N SER D 242	11.862	64.474	98.701	1.00	47.87	N
ATOM 11671	CA SER D 242	12.994	64.360	99.614	1.00	48.11	C
ATOM 11673	CB SER D 242	14.130	65.283	99.158	1.00	48.20	C
ATOM 11676	OG SER D 242	14.748	64.781	97.974	1.00	47.67	O
ATOM 11678	C SER D 242	12.537	64.649	101.054	1.00	48.36	C
ATOM 11679	O SER D 242	12.852	65.690	101.633	1.00	48.19	O
ATOM 11680	N PHE D 243	11.771	63.697	101.595	1.00	48.74	N
ATOM 11682	CA PHE D 243	11.203	63.734	102.957	1.00	48.90	C
ATOM 11684	CB PHE D 243	9.680	63.930	102.863	1.00	49.16	C
ATOM 11687	CG PHE D 243	9.049	64.568	104.079	1.00	49.90	C
ATOM 11688	CD1 PHE D 243	9.309	65.895	104.404	1.00	50.91	C
ATOM 11690	CE1 PHE D 243	8.712	66.489	105.519	1.00	51.28	C
ATOM 11692	CZ PHE D 243	7.832	65.750	106.311	1.00	51.43	C
ATOM 11694	CE2 PHE D 243	7.556	64.428	105.985	1.00	51.08	C
ATOM 11696	CD2 PHE D 243	8.159	63.846	104.873	1.00	50.59	C
ATOM 11698	C PHE D 243	11.505	62.425	103.726	1.00	48.63	C
ATOM 11699	O PHE D 243	11.394	62.376	104.952	1.00	48.58	O
ATOM 11700	N SER D 244	11.849	61.364	102.996	1.00	48.29	N
ATOM 11702	CA SER D 244	12.382	60.144	103.592	1.00	48.06	C
ATOM 11704	CB SER D 244	11.270	59.310	104.218	1.00	48.10	C
ATOM 11707	OG SER D 244	10.746	58.391	103.277	1.00	47.55	O
ATOM 11709	C SER D 244	13.092	59.317	102.533	1.00	47.93	C
ATOM 11710	O SER D 244	14.311	59.167	102.573	1.00	47.82	O
ATOM 11711	N LYS D 248	17.681	58.291	106.502	1.00	23.61	N
ATOM 11713	CA LYS D 248	19.122	58.064	106.472	1.00	23.99	C
ATOM 11715	CB LYS D 248	19.499	57.007	105.410	1.00	24.25	C
ATOM 11718	CG LYS D 248	19.137	57.358	103.961	1.00	24.56	C
ATOM 11721	CD LYS D 248	19.346	56.148	103.041	1.00	24.62	C
ATOM 11724	CE LYS D 248	18.163	55.183	103.058	1.00	24.46	C
ATOM 11727	NZ LYS D 248	18.102	54.398	101.778	1.00	25.51	N
ATOM 11731	C LYS D 248	19.917	59.357	106.268	1.00	23.95	C
ATOM 11732	O LYS D 248	20.826	59.416	105.435	1.00	23.68	O
ATOM 11733	N VAL D 249	19.535	60.397	107.025	1.00	24.26	N
ATOM 11735	CA VAL D 249	20.399	61.558	107.303	1.00	24.27	C
ATOM 11737	CB VAL D 249	19.578	62.852	107.446	1.00	24.61	C
ATOM 11739	CG1 VAL D 249	20.201	63.839	108.484	1.00	25.06	C
ATOM 11743	CG2 VAL D 249	19.440	63.533	106.095	1.00	24.50	C
ATOM 11747	C VAL D 249	21.208	61.299	108.596	1.00	24.25	C
ATOM 11748	O VAL D 249	20.827	60.454	109.439	1.00	25.68	O
ATOM 11749	N THR D 250	22.350	61.969	108.718	1.00	23.74	N

153

ATOM 11751	CA	THR D 250	23.272	61.701	109.820	1.00	23.91	C
ATOM 11753	CB	THR D 250	24.543	62.578	109.695	1.00	23.77	C
ATOM 11755	OG1	THR D 250	25.365	62.086	108.617	1.00	26.19	O
ATOM 11757	CG2	THR D 250	25.424	62.428	110.942	1.00	24.26	C
ATOM 11761	C	THR D 250	22.520	62.005	111.099	1.00	23.00	C
ATOM 11762	O	THR D 250	22.155	63.151	111.273	1.00	23.62	O
ATOM 11763	N	PRO D 251	22.290	61.031	111.999	1.00	22.63	N
ATOM 11764	CA	PRO D 251	21.419	61.299	113.152	1.00	22.29	C
ATOM 11766	CB	PRO D 251	21.455	59.981	113.949	1.00	22.27	C
ATOM 11769	CG	PRO D 251	21.943	58.958	113.006	1.00	21.63	C
ATOM 11772	CD	PRO D 251	22.839	59.655	112.042	1.00	21.97	C
ATOM 11775	C	PRO D 251	21.941	62.446	114.002	1.00	22.45	C
ATOM 11776	O	PRO D 251	23.142	62.692	114.044	1.00	22.32	O
ATOM 11777	N	TRP D 252	21.022	63.154	114.645	1.00	22.89	N
ATOM 11779	CA	TRP D 252	21.355	64.180	115.621	1.00	23.20	C
ATOM 11781	CB	TRP D 252	20.140	65.080	115.841	1.00	23.25	C
ATOM 11784	CG	TRP D 252	20.347	66.211	116.785	1.00	22.82	C
ATOM 11785	CD1	TRP D 252	19.884	66.301	118.071	1.00	23.00	C
ATOM 11787	NE1	TRP D 252	20.249	67.508	118.619	1.00	22.54	N
ATOM 11789	CE2	TRP D 252	20.961	68.223	117.693	1.00	20.94	C
ATOM 11790	CD2	TRP D 252	21.041	67.437	116.525	1.00	21.09	C
ATOM 11791	CE3	TRP D 252	21.712	67.957	115.418	1.00	19.19	C
ATOM 11793	CZ3	TRP D 252	22.281	69.207	115.510	1.00	19.44	C
ATOM 11795	CH2	TRP D 252	22.194	69.963	116.688	1.00	19.35	C
ATOM 11797	CZ2	TRP D 252	21.545	69.484	117.790	1.00	20.08	C
ATOM 11799	C	TRP D 252	21.736	63.472	116.928	1.00	23.76	C
ATOM 11800	O	TRP D 252	20.969	62.645	117.429	1.00	23.42	O
ATOM 11801	N	PRO D 253	22.905	63.792	117.483	1.00	24.27	N
ATOM 11802	CA	PRO D 253	23.396	63.095	118.684	1.00	24.96	C
ATOM 11804	CB	PRO D 253	24.851	63.570	118.782	1.00	25.11	C
ATOM 11807	CG	PRO D 253	24.834	64.960	118.129	1.00	24.28	C
ATOM 11810	CD	PRO D 253	23.846	64.833	117.020	1.00	23.79	C
ATOM 11813	C	PRO D 253	22.630	63.460	119.965	1.00	25.47	C
ATOM 11814	O	PRO D 253	22.438	64.633	120.217	1.00	25.12	O
ATOM 11815	N	LEU D 254	22.229	62.467	120.758	1.00	26.64	N
ATOM 11817	CA	LEU D 254	21.485	62.709	122.000	1.00	27.24	C
ATOM 11819	CB	LEU D 254	19.976	62.544	121.766	1.00	27.66	C
ATOM 11822	CG	LEU D 254	19.017	63.271	122.725	1.00	28.68	C
ATOM 11824	CD1	LEU D 254	17.671	63.554	122.025	1.00	29.38	C
ATOM 11828	CD2	LEU D 254	18.808	62.484	124.047	1.00	28.27	C
ATOM 11832	C	LEU D 254	21.955	61.747	123.077	1.00	27.16	C
ATOM 11833	O	LEU D 254	23.095	61.829	123.524	1.00	27.35	O
ATOM 11834	N	ALA D 263	30.857	65.517	119.743	1.00	15.82	N
ATOM 11836	CA	ALA D 263	29.511	66.081	119.841	1.00	15.12	C
ATOM 11838	CB	ALA D 263	29.334	66.786	121.199	1.00	15.15	C
ATOM 11842	C	ALA D 263	29.243	67.060	118.699	1.00	15.39	C
ATOM 11843	O	ALA D 263	28.303	66.893	117.915	1.00	15.04	O
ATOM 11844	N	ARG D 264	30.098	68.077	118.619	1.00	15.54	N

154

ATOM 11846	CA	ARG D 264	29.892	69.248	117.769	1.00	15.58	C
ATOM 11848	CB	ARG D 264	30.954	70.302	118.100	1.00	15.89	C
ATOM 11851	CG	ARG D 264	30.868	71.599	117.300	1.00	17.92	C
ATOM 11854	CD	ARG D 264	32.120	72.463	117.405	1.00	21.06	C
ATOM 11857	NE	ARG D 264	32.058	73.391	118.544	1.00	23.59	N
ATOM 11859	CZ	ARG D 264	33.010	73.564	119.469	1.00	24.08	C
ATOM 11860	NH1	ARG D 264	34.143	72.872	119.436	1.00	24.73	N
ATOM 11863	NH2	ARG D 264	32.822	74.448	120.445	1.00	24.83	N
ATOM 11866	C	ARG D 264	29.960	68.951	116.281	1.00	15.32	C
ATOM 11867	O	ARG D 264	29.230	69.545	115.484	1.00	16.01	O
ATOM 11868	N	GLN D 265	30.875	68.083	115.896	1.00	14.71	N
ATOM 11870	CA	GLN D 265	31.051	67.768	114.501	1.00	14.45	C
ATOM 11872	CB	GLN D 265	32.249	66.810	114.335	1.00	14.27	C
ATOM 11875	CG	GLN D 265	32.745	66.608	112.924	1.00	15.64	C
ATOM 11878	CD	GLN D 265	32.846	67.907	112.170	1.00	17.15	C
ATOM 11879	OE1	GLN D 265	33.325	68.907	112.706	1.00	20.03	O
ATOM 11880	NE2	GLN D 265	32.355	67.925	110.934	1.00	18.99	N
ATOM 11883	C	GLN D 265	29.761	67.158	113.938	1.00	13.72	C
ATOM 11884	O	GLN D 265	29.284	67.510	112.836	1.00	13.91	O
ATOM 11885	N	GLN D 266	29.188	66.252	114.739	1.00	12.91	N
ATOM 11887	CA	GLN D 266	28.149	65.325	114.235	1.00	11.84	C
ATOM 11889	CB	GLN D 266	27.945	64.059	115.134	1.00	11.26	C
ATOM 11892	CG	GLN D 266	26.835	63.221	114.605	1.00	10.67	C
ATOM 11895	CD	GLN D 266	26.473	62.038	115.472	1.00	9.95	C
ATOM 11896	OE1	GLN D 266	27.441	61.240	115.906	1.00	14.03	O
ATOM 11897	NE2	GLN D 266	25.095	61.840	115.695	1.00	9.62	N
ATOM 11900	C	GLN D 266	26.893	66.124	114.044	1.00	10.73	C
ATOM 11901	O	GLN D 266	26.124	65.836	113.138	1.00	10.79	O
ATOM 11902	N	ARG D 267	26.711	67.150	114.880	1.00	10.72	N
ATOM 11904	CA	ARG D 267	25.655	68.143	114.690	1.00	9.57	C
ATOM 11906	CB	ARG D 267	25.658	69.131	115.851	1.00	10.02	C
ATOM 11909	CG	ARG D 267	25.292	68.491	117.165	1.00	11.16	C
ATOM 11912	CD	ARG D 267	25.501	69.363	118.383	1.00	12.48	C
ATOM 11915	NE	ARG D 267	24.643	68.881	119.462	1.00	14.21	N
ATOM 11917	CZ	ARG D 267	24.994	68.041	120.411	1.00	14.60	C
ATOM 11918	NH1	ARG D 267	26.225	67.555	120.483	1.00	16.97	N
ATOM 11921	NH2	ARG D 267	24.093	67.674	121.302	1.00	16.03	N
ATOM 11924	C	ARG D 267	25.821	68.885	113.371	1.00	8.78	C
ATOM 11925	O	ARG D 267	24.841	69.132	112.648	1.00	8.97	O
ATOM 11926	N	PHE D 268	27.054	69.283	113.095	1.00	7.58	N
ATOM 11928	CA	PHE D 268	27.375	70.047	111.908	1.00	8.70	C
ATOM 11930	CB	PHE D 268	28.790	70.601	112.062	1.00	8.84	C
ATOM 11933	CG	PHE D 268	29.219	71.516	110.957	1.00	10.11	C
ATOM 11934	CD1	PHE D 268	28.729	72.811	110.887	1.00	11.63	C
ATOM 11936	CE1	PHE D 268	29.142	73.670	109.868	1.00	11.77	C
ATOM 11938	CZ	PHE D 268	30.060	73.230	108.922	1.00	12.70	C
ATOM 11940	CE2	PHE D 268	30.562	71.937	108.989	1.00	11.80	C
ATOM 11942	CD2	PHE D 268	30.145	71.092	110.003	1.00	11.22	C

155

ATOM 11944	C	PHE D 268	27.245	69.208	110.625	1.00	9.18	C
ATOM 11945	O	PHE D 268	26.834	69.718	109.592	1.00	9.25	O
ATOM 11946	N	ALA D 269	27.602	67.917	110.723	1.00	10.13	N
ATOM 11948	CA	ALA D 269	27.536	66.911	109.618	1.00	10.21	C
ATOM 11950	CB	ALA D 269	28.250	65.598	110.063	1.00	10.31	C
ATOM 11954	C	ALA D 269	26.083	66.592	109.228	1.00	10.91	C
ATOM 11955	O	ALA D 269	25.729	66.630	108.035	1.00	12.36	O
ATOM 11956	N	HIS D 270	25.258	66.372	110.264	1.00	11.18	N
ATOM 11958	CA	HIS D 270	23.750	66.466	110.215	1.00	11.49	C
ATOM 11960	CB	HIS D 270	23.176	66.476	111.661	1.00	11.52	C
ATOM 11963	CG	HIS D 270	21.683	66.484	111.742	1.00	10.43	C
ATOM 11964	ND1	HIS D 270	20.923	65.342	111.597	1.00	11.21	N
ATOM 11966	CE1	HIS D 270	19.646	65.643	111.764	1.00	10.17	C
ATOM 11968	NE2	HIS D 270	19.553	66.931	112.026	1.00	10.35	N
ATOM 11970	CD2	HIS D 270	20.813	67.478	112.029	1.00	10.38	C
ATOM 11972	C	HIS D 270	23.211	67.698	109.459	1.00	11.03	C
ATOM 11973	O	HIS D 270	22.516	67.540	108.464	1.00	10.07	O
ATOM 11974	N	PHE D 271	23.531	68.900	109.935	1.00	12.19	N
ATOM 11976	CA	PHE D 271	22.949	70.147	109.352	1.00	12.95	C
ATOM 11978	CB	PHE D 271	23.338	71.403	110.125	1.00	12.73	C
ATOM 11981	CG	PHE D 271	22.560	71.629	111.385	1.00	13.70	C
ATOM 11982	CD1	PHE D 271	21.203	71.347	111.467	1.00	12.94	C
ATOM 11984	CE1	PHE D 271	20.500	71.577	112.633	1.00	13.61	C
ATOM 11986	CZ	PHE D 271	21.137	72.109	113.746	1.00	14.47	C
ATOM 11988	CE2	PHE D 271	22.484	72.401	113.692	1.00	14.69	C
ATOM 11990	CD2	PHE D 271	23.197	72.161	112.507	1.00	15.14	C
ATOM 11992	C	PHE D 271	23.384	70.355	107.899	1.00	13.45	C
ATOM 11993	O	PHE D 271	22.601	70.837	107.099	1.00	13.59	O
ATOM 11994	N	THR D 272	24.621	70.002	107.553	1.00	13.98	N
ATOM 11996	CA	THR D 272	25.086	70.246	106.173	1.00	14.53	C
ATOM 11998	CB	THR D 272	26.635	70.206	106.058	1.00	14.51	C
ATOM 12000	OG1	THR D 272	27.122	68.943	106.475	1.00	15.24	O
ATOM 12002	CG2	THR D 272	27.306	71.190	107.012	1.00	15.84	C
ATOM 12006	C	THR D 272	24.445	69.214	105.206	1.00	14.43	C
ATOM 12007	O	THR D 272	24.234	69.486	104.024	1.00	14.03	O
ATOM 12008	N	GLU D 273	24.099	68.056	105.755	1.00	14.40	N
ATOM 12010	CA	GLU D 273	23.338	67.043	105.059	1.00	14.64	C
ATOM 12012	CB	GLU D 273	23.426	65.719	105.819	1.00	14.96	C
ATOM 12015	CG	GLU D 273	24.778	65.038	105.647	1.00	16.16	C
ATOM 12018	CD	GLU D 273	24.830	63.592	106.169	1.00	18.32	C
ATOM 12019	OE1	GLU D 273	23.809	62.878	106.075	1.00	19.66	O
ATOM 12020	OE2	GLU D 273	25.899	63.167	106.677	1.00	17.51	O
ATOM 12021	C	GLU D 273	21.888	67.443	104.842	1.00	15.07	C
ATOM 12022	O	GLU D 273	21.340	67.154	103.794	1.00	14.78	O
ATOM 12023	N	LEU D 274	21.272	68.137	105.805	1.00	16.32	N
ATOM 12025	CA	LEU D 274	19.953	68.721	105.606	1.00	16.15	C
ATOM 12027	CB	LEU D 274	19.436	69.337	106.928	1.00	16.45	C
ATOM 12030	CG	LEU D 274	19.056	68.335	108.026	1.00	16.01	C

156

ATOM 12032	CD1 LEU D 274	18.540	69.067	109.263	1.00	16.34	C
ATOM 12036	CD2 LEU D 274	18.000	67.367	107.499	1.00	16.01	C
ATOM 12040	C LEU D 274	20.056	69.776	104.516	1.00	16.68	C
ATOM 12041	O LEU D 274	19.120	69.983	103.737	1.00	17.92	O
ATOM 12042	N ALA D 275	21.186	70.471	104.489	1.00	16.79	N
ATOM 12044	CA ALA D 275	21.356	71.617	103.597	1.00	16.89	C
ATOM 12046	CB ALA D 275	22.500	72.509	104.061	1.00	16.76	C
ATOM 12050	C ALA D 275	21.583	71.118	102.192	1.00	17.11	C
ATOM 12051	O ALA D 275	21.303	71.812	101.234	1.00	16.72	O
ATOM 12052	N ILE D 276	22.090	69.900	102.066	1.00	17.87	N
ATOM 12054	CA ILE D 276	22.223	69.283	100.760	1.00	18.36	C
ATOM 12056	CB ILE D 276	23.154	68.035	100.816	1.00	18.67	C
ATOM 12058	CG1 ILE D 276	24.608	68.473	100.639	1.00	18.87	C
ATOM 12061	CD1 ILE D 276	25.608	67.385	100.887	1.00	18.69	C
ATOM 12065	CG2 ILE D 276	22.794	67.012	99.727	1.00	18.15	C
ATOM 12069	C ILE D 276	20.832	68.935	100.221	1.00	18.77	C
ATOM 12070	O ILE D 276	20.526	69.241	99.077	1.00	18.97	O
ATOM 12071	N ILE D 277	20.001	68.310	101.058	1.00	19.19	N
ATOM 12073	CA ILE D 277	18.626	67.977	100.694	1.00	19.42	C
ATOM 12075	CB ILE D 277	17.814	67.396	101.907	1.00	19.72	C
ATOM 12077	CG1 ILE D 277	18.524	66.239	102.634	1.00	18.37	C
ATOM 12080	CD1 ILE D 277	19.224	65.322	101.768	1.00	19.65	C
ATOM 12084	CG2 ILE D 277	16.448	66.914	101.453	1.00	20.12	C
ATOM 12088	C ILE D 277	17.908	69.228	100.193	1.00	19.62	C
ATOM 12089	O ILE D 277	17.204	69.171	99.196	1.00	19.60	O
ATOM 12090	N SER D 278	18.096	70.353	100.885	1.00	19.92	N
ATOM 12092	CA SER D 278	17.355	71.567	100.574	1.00	20.02	C
ATOM 12094	CB SER D 278	17.558	72.644	101.655	1.00	19.97	C
ATOM 12097	OG SER D 278	18.492	73.625	101.252	1.00	21.92	O
ATOM 12099	C SER D 278	17.740	72.073	99.180	1.00	19.78	C
ATOM 12100	O SER D 278	16.882	72.363	98.358	1.00	19.35	O
ATOM 12101	N VAL D 279	19.040	72.165	98.936	1.00	19.89	N
ATOM 12103	CA VAL D 279	19.576	72.580	97.641	1.00	19.81	C
ATOM 12105	CB VAL D 279	21.126	72.501	97.591	1.00	19.42	C
ATOM 12107	CG1 VAL D 279	21.637	72.653	96.153	1.00	19.77	C
ATOM 12111	CG2 VAL D 279	21.748	73.576	98.443	1.00	18.88	C
ATOM 12115	C VAL D 279	18.982	71.734	96.522	1.00	20.45	C
ATOM 12116	O VAL D 279	18.659	72.259	95.466	1.00	19.99	O
ATOM 12117	N GLN D 280	18.835	70.432	96.767	1.00	21.26	N
ATOM 12119	CA GLN D 280	18.253	69.518	95.793	1.00	21.89	C
ATOM 12121	CB GLN D 280	18.454	68.061	96.226	1.00	22.04	C
ATOM 12124	CG GLN D 280	19.872	67.550	95.960	1.00	22.96	C
ATOM 12127	CD GLN D 280	20.046	66.071	96.261	1.00	24.00	C
ATOM 12128	OE1 GLN D 280	20.010	65.662	97.426	1.00	24.83	O
ATOM 12129	NE2 GLN D 280	20.235	65.266	95.213	1.00	23.62	N
ATOM 12132	C GLN D 280	16.774	69.799	95.496	1.00	22.33	C
ATOM 12133	O GLN D 280	16.340	69.632	94.367	1.00	22.96	O
ATOM 12134	N GLU D 281	16.010	70.205	96.500	1.00	22.93	N

157

ATOM 12136	CA	GLU D 281	14.615	70.609	96.310	1.00	23.51	C
ATOM 12138	CB	GLU D 281	13.922	70.779	97.667	1.00	23.43	C
ATOM 12141	CG	GLU D 281	13.495	69.457	98.254	1.00	23.68	C
ATOM 12144	CD	GLU D 281	13.353	69.463	99.760	1.00	25.28	C
ATOM 12145	OE1	GLU D 281	13.729	68.423	100.343	1.00	26.48	O
ATOM 12146	OE2	GLU D 281	12.861	70.465	100.359	1.00	24.67	O
ATOM 12147	C	GLU D 281	14.496	71.921	95.542	1.00	23.98	C
ATOM 12148	O	GLU D 281	13.561	72.114	94.762	1.00	24.80	O
ATOM 12149	N	ILE D 282	15.439	72.823	95.774	1.00	23.97	N
ATOM 12151	CA	ILE D 282	15.439	74.118	95.115	1.00	24.13	C
ATOM 12153	CB	ILE D 282	16.421	75.055	95.838	1.00	23.78	C
ATOM 12155	CG1	ILE D 282	15.867	75.383	97.240	1.00	24.74	C
ATOM 12158	CD1	ILE D 282	16.916	75.591	98.309	1.00	23.97	C
ATOM 12162	CG2	ILE D 282	16.662	76.327	95.020	1.00	23.83	C
ATOM 12166	C	ILE D 282	15.751	73.985	93.600	1.00	24.22	C
ATOM 12167	O	ILE D 282	15.155	74.682	92.787	1.00	24.55	O
ATOM 12168	N	VAL D 283	16.670	73.097	93.234	1.00	24.41	N
ATOM 12170	CA	VAL D 283	16.956	72.791	91.820	1.00	24.66	C
ATOM 12172	CB	VAL D 283	18.235	71.912	91.676	1.00	24.33	C
ATOM 12174	CG1	VAL D 283	18.391	71.373	90.260	1.00	24.13	C
ATOM 12178	CG2	VAL D 283	19.473	72.705	92.072	1.00	23.75	C
ATOM 12182	C	VAL D 283	15.761	72.083	91.163	1.00	25.36	C
ATOM 12183	O	VAL D 283	15.421	72.357	90.018	1.00	25.75	O
ATOM 12184	N	ASP D 284	15.122	71.179	91.895	1.00	26.12	N
ATOM 12186	CA	ASP D 284	13.939	70.481	91.407	1.00	26.56	C
ATOM 12188	CB	ASP D 284	13.477	69.450	92.449	1.00	26.78	C
ATOM 12191	CG	ASP D 284	14.515	68.305	92.682	1.00	27.85	C
ATOM 12192	OD1	ASP D 284	14.259	67.409	93.538	1.00	30.00	O
ATOM 12193	OD2	ASP D 284	15.603	68.210	92.054	1.00	30.37	O
ATOM 12194	C	ASP D 284	12.782	71.436	91.138	1.00	26.95	C
ATOM 12195	O	ASP D 284	12.044	71.260	90.179	1.00	27.02	O
ATOM 12196	N	PHE D 285	12.622	72.446	91.989	1.00	27.53	N
ATOM 12198	CA	PHE D 285	11.417	73.279	91.953	1.00	27.94	C
ATOM 12200	CB	PHE D 285	11.293	74.075	93.258	1.00	27.87	C
ATOM 12203	CG	PHE D 285	10.176	75.093	93.245	1.00	29.17	C
ATOM 12204	CD1	PHE D 285	8.851	74.690	93.166	1.00	29.61	C
ATOM 12206	CE1	PHE D 285	7.821	75.630	93.177	1.00	30.27	C
ATOM 12208	CZ	PHE D 285	8.110	76.986	93.266	1.00	30.56	C
ATOM 12210	CE2	PHE D 285	9.431	77.402	93.358	1.00	31.11	C
ATOM 12212	CD2	PHE D 285	10.456	76.454	93.341	1.00	30.82	C
ATOM 12214	C	PHE D 285	11.439	74.241	90.750	1.00	28.00	C
ATOM 12215	O	PHE D 285	10.438	74.409	90.017	1.00	27.92	O
ATOM 12216	N	ALA D 286	12.590	74.880	90.566	1.00	28.10	N
ATOM 12218	CA	ALA D 286	12.730	75.968	89.602	1.00	27.97	C
ATOM 12220	CB	ALA D 286	14.056	76.692	89.813	1.00	28.07	C
ATOM 12224	C	ALA D 286	12.596	75.475	88.170	1.00	28.29	C
ATOM 12225	O	ALA D 286	12.360	76.262	87.255	1.00	28.87	O
ATOM 12226	N	LYS D 287	12.734	74.169	87.968	1.00	28.01	N

ATOM 12228	CA	LYS D 287	12.422	73.559	86.676	1.00	27.63	C
ATOM 12230	CB	LYS D 287	12.979	72.134	86.616	1.00	27.51	C
ATOM 12233	CG	LYS D 287	14.495	72.052	86.779	1.00	27.18	C
ATOM 12236	CD	LYS D 287	15.172	71.370	85.606	1.00	26.98	C
ATOM 12239	CE	LYS D 287	16.398	70.598	86.049	1.00	26.86	C
ATOM 12242	NZ	LYS D 287	17.334	71.436	86.856	1.00	27.39	N
ATOM 12246	C	LYS D 287	10.913	73.524	86.373	1.00	27.49	C
ATOM 12247	O	LYS D 287	10.516	73.471	85.203	1.00	27.79	O
ATOM 12248	N	GLN D 288	10.091	73.531	87.422	1.00	27.27	N
ATOM 12250	CA	GLN D 288	8.626	73.517	87.304	1.00	26.99	C
ATOM 12252	CB	GLN D 288	7.953	72.736	88.465	1.00	27.01	C
ATOM 12255	CG	GLN D 288	8.863	71.878	89.396	1.00	26.76	C
ATOM 12258	CD	GLN D 288	9.458	70.660	88.723	1.00	25.89	C
ATOM 12259	OE1	GLN D 288	9.535	70.602	87.493	1.00	25.79	O
ATOM 12260	NE2	GLN D 288	9.897	69.684	89.528	1.00	25.05	N
ATOM 12263	C	GLN D 288	8.043	74.941	87.257	1.00	26.93	C
ATOM 12264	O	GLN D 288	6.844	75.108	87.028	1.00	26.61	O
ATOM 12265	N	VAL D 289	8.877	75.955	87.517	1.00	27.06	N
ATOM 12267	CA	VAL D 289	8.426	77.352	87.510	1.00	27.16	C
ATOM 12269	CB	VAL D 289	9.379	78.326	88.303	1.00	27.22	C
ATOM 12271	CG1	VAL D 289	8.891	79.799	88.205	1.00	27.25	C
ATOM 12275	CG2	VAL D 289	9.470	77.922	89.763	1.00	26.81	C
ATOM 12279	C	VAL D 289	8.328	77.764	86.051	1.00	27.19	C
ATOM 12280	O	VAL D 289	9.332	77.715	85.335	1.00	27.05	O
ATOM 12281	N	PRO D 290	7.126	78.142	85.605	1.00	27.38	N
ATOM 12282	CA	PRO D 290	6.897	78.447	84.183	1.00	27.53	C
ATOM 12284	CB	PRO D 290	5.381	78.718	84.093	1.00	27.35	C
ATOM 12287	CG	PRO D 290	4.873	78.829	85.482	1.00	27.65	C
ATOM 12290	CD	PRO D 290	5.898	78.282	86.415	1.00	27.30	C
ATOM 12293	C	PRO D 290	7.699	79.645	83.668	1.00	27.65	C
ATOM 12294	O	PRO D 290	7.530	80.781	84.151	1.00	27.72	O
ATOM 12295	N	GLY D 291	8.566	79.374	82.686	1.00	27.90	N
ATOM 12297	CA	GLY D 291	9.396	80.402	82.090	1.00	28.23	C
ATOM 12300	C	GLY D 291	10.813	80.395	82.622	1.00	28.44	C
ATOM 12301	O	GLY D 291	11.585	81.323	82.353	1.00	28.97	O
ATOM 12302	N	PHE D 292	11.153	79.359	83.390	1.00	28.38	N
ATOM 12304	CA	PHE D 292	12.541	79.097	83.782	1.00	28.34	C
ATOM 12306	CB	PHE D 292	12.582	78.421	85.153	1.00	28.26	C
ATOM 12309	CG	PHE D 292	13.969	78.304	85.731	1.00	28.51	C
ATOM 12310	CD1	PHE D 292	14.585	79.403	86.346	1.00	29.08	C
ATOM 12312	CE1	PHE D 292	15.864	79.289	86.895	1.00	29.07	C
ATOM 12314	CZ	PHE D 292	16.528	78.066	86.840	1.00	29.24	C
ATOM 12316	CE2	PHE D 292	15.913	76.964	86.240	1.00	28.66	C
ATOM 12318	CD2	PHE D 292	14.644	77.089	85.698	1.00	28.29	C
ATOM 12320	C	PHE D 292	13.219	78.216	82.691	1.00	28.38	C
ATOM 12321	O	PHE D 292	14.393	78.434	82.310	1.00	28.41	O
ATOM 12322	N	LEU D 293	12.476	77.232	82.184	1.00	28.18	N
ATOM 12324	CA	LEU D 293	12.965	76.387	81.080	1.00	28.35	C

ATOM 12326	CB	LEU D 293	12.044	75.182	80.835	1.00	28.15	C
ATOM 12329	CG	LEU D 293	11.584	74.346	82.039	1.00	28.44	C
ATOM 12331	CD1	LEU D 293	10.516	73.358	81.587	1.00	27.76	C
ATOM 12335	CD2	LEU D 293	12.746	73.629	82.737	1.00	28.24	C
ATOM 12339	C	LEU D 293	13.079	77.204	79.787	1.00	28.33	C
ATOM 12340	O	LEU D 293	13.997	77.010	78.991	1.00	28.19	O
ATOM 12341	N	GLN D 294	12.144	78.141	79.618	1.00	28.46	N
ATOM 12343	CA	GLN D 294	12.107	79.057	78.475	1.00	28.18	C
ATOM 12345	CB	GLN D 294	10.831	79.920	78.570	1.00	28.28	C
ATOM 12348	CG	GLN D 294	10.466	80.703	77.276	1.00	27.59	C
ATOM 12351	CD	GLN D 294	10.260	82.221	77.500	1.00	27.61	C
ATOM 12352	OE1	GLN D 294	9.567	82.632	78.443	1.00	27.74	O
ATOM 12353	NE2	GLN D 294	10.861	83.053	76.639	1.00	26.90	N
ATOM 12356	C	GLN D 294	13.353	79.970	78.391	1.00	28.23	C
ATOM 12357	O	GLN D 294	13.645	80.540	77.318	1.00	28.13	O
ATOM 12358	N	LEU D 295	14.060	80.109	79.540	1.00	28.25	N
ATOM 12360	CA	LEU D 295	15.302	80.897	79.636	1.00	28.11	C
ATOM 12362	CB	LEU D 295	15.630	81.226	81.121	1.00	28.04	C
ATOM 12365	CG	LEU D 295	15.554	82.709	81.532	1.00	28.57	C
ATOM 12367	CD1	LEU D 295	15.640	82.876	83.056	1.00	28.80	C
ATOM 12371	CD2	LEU D 295	16.640	83.533	80.833	1.00	28.63	C
ATOM 12375	C	LEU D 295	16.495	80.163	78.975	1.00	27.70	C
ATOM 12376	O	LEU D 295	16.357	79.018	78.529	1.00	27.52	O
ATOM 12377	N	GLY D 296	17.653	80.835	78.927	1.00	27.22	N
ATOM 12379	CA	GLY D 296	18.927	80.182	78.639	1.00	26.39	C
ATOM 12382	C	GLY D 296	19.314	79.225	79.784	1.00	26.06	C
ATOM 12383	O	GLY D 296	18.913	79.434	80.958	1.00	25.82	O
ATOM 12384	N	ARG D 297	20.097	78.188	79.461	1.00	25.25	N
ATOM 12386	CA	ARG D 297	20.495	77.161	80.443	1.00	24.86	C
ATOM 12388	CB	ARG D 297	20.919	75.865	79.734	1.00	24.84	C
ATOM 12391	CG	ARG D 297	20.364	74.576	80.346	1.00	24.74	C
ATOM 12394	CD	ARG D 297	20.206	73.445	79.331	1.00	24.92	C
ATOM 12397	NE	ARG D 297	21.310	73.414	78.361	1.00	24.99	N
ATOM 12399	CZ	ARG D 297	21.184	73.382	77.030	1.00	25.02	C
ATOM 12400	NH1	ARG D 297	19.992	73.368	76.439	1.00	25.26	N
ATOM 12403	NH2	ARG D 297	22.277	73.358	76.274	1.00	25.43	N
ATOM 12406	C	ARG D 297	21.628	77.648	81.360	1.00	24.55	C
ATOM 12407	O	ARG D 297	21.660	77.313	82.548	1.00	24.58	O
ATOM 12408	N	GLU D 298	22.557	78.433	80.812	1.00	24.01	N
ATOM 12410	CA	GLU D 298	23.584	79.090	81.631	1.00	23.59	C
ATOM 12412	CB	GLU D 298	24.625	79.757	80.737	1.00	23.52	C
ATOM 12415	CG	GLU D 298	25.440	78.774	79.907	1.00	23.01	C
ATOM 12418	CD	GLU D 298	26.123	79.421	78.714	1.00	22.51	C
ATOM 12419	OE1	GLU D 298	26.009	80.652	78.552	1.00	22.35	O
ATOM 12420	OE2	GLU D 298	26.781	78.698	77.936	1.00	21.54	O
ATOM 12421	C	GLU D 298	22.934	80.134	82.551	1.00	23.51	C
ATOM 12422	O	GLU D 298	23.381	80.375	83.704	1.00	23.44	O
ATOM 12423	N	ASP D 299	21.862	80.740	82.036	1.00	23.15	N

160

ATOM 12425	CA	ASP D 299	21.087	81.711	82.789	1.00	23.01	C
ATOM 12427	CB	ASP D 299	20.078	82.417	81.860	1.00	22.83	C
ATOM 12430	CG	ASP D 299	20.717	83.756	81.142	1.00	22.93	C
ATOM 12431	OD1	ASP D 299	21.119	84.501	82.342	1.00	24.43	O
ATOM 12432	OD2	ASP D 299	20.873	84.135	79.437	1.00	21.52	O
ATOM 12433	C	ASP D 299	20.400	81.101	84.024	1.00	22.79	C
ATOM 12434	O	ASP D 299	20.202	81.793	85.039	1.00	23.01	O
ATOM 12435	N	GLN D 300	20.054	79.811	83.940	1.00	22.49	N
ATOM 12437	CA	GLN D 300	19.496	79.076	85.083	1.00	22.30	C
ATOM 12439	CB	GLN D 300	18.956	77.720	84.632	1.00	22.53	C
ATOM 12442	CG	GLN D 300	17.777	77.794	83.684	1.00	22.81	C
ATOM 12445	CD	GLN D 300	17.348	76.352	83.232	1.00	25.00	C
ATOM 12446	OE1	GLN D 300	16.161	76.074	82.932	1.00	27.61	O
ATOM 12447	NE2	GLN D 300	18.313	75.420	83.157	1.00	25.87	N
ATOM 12450	C	GLN D 300	20.536	78.854	86.178	1.00	21.65	C
ATOM 12451	O	GLN D 300	20.199	78.809	87.344	1.00	21.44	O
ATOM 12452	N	ILE D 301	21.798	78.693	85.784	1.00	21.29	N
ATOM 12454	CA	ILE D 301	22.893	78.486	86.741	1.00	20.83	C
ATOM 12456	CB	ILE D 301	24.200	78.063	86.008	1.00	20.65	C
ATOM 12458	CG1	ILE D 301	23.997	76.768	85.199	1.00	20.83	C
ATOM 12461	CD1	ILE D 301	25.057	76.532	84.117	1.00	20.59	C
ATOM 12465	CG2	ILE D 301	25.344	77.879	87.008	1.00	20.52	C
ATOM 12469	C	ILE D 301	23.169	79.726	87.656	1.00	20.35	C
ATOM 12470	O	ILE D 301	23.414	79.554	88.840	1.00	19.89	O
ATOM 12471	N	ALA D 302	23.153	80.954	87.093	1.00	20.19	N
ATOM 12473	CA	ALA D 302	23.590	82.168	87.805	1.00	19.63	C
ATOM 12475	CB	ALA D 302	23.850	83.284	86.808	1.00	20.06	C
ATOM 12479	C	ALA D 302	22.517	82.597	88.812	1.00	20.17	C
ATOM 12480	O	ALA D 302	22.805	83.014	89.994	1.00	19.10	O
ATOM 12481	N	LEU D 303	21.260	82.490	88.324	1.00	19.99	N
ATOM 12483	CA	LEU D 303	20.130	82.780	89.160	1.00	19.26	C
ATOM 12485	CB	LEU D 303	18.812	82.633	88.388	1.00	19.41	C
ATOM 12488	CG	LEU D 303	18.558	83.676	87.275	1.00	19.77	C
ATOM 12490	CD1	LEU D 303	17.155	83.525	86.665	1.00	19.43	C
ATOM 12494	CD2	LEU D 303	18.770	85.100	87.802	1.00	19.37	C
ATOM 12498	C	LEU D 303	20.165	81.826	90.334	1.00	19.62	C
ATOM 12499	O	LEU D 303	19.912	82.255	91.474	1.00	19.24	O
ATOM 12500	N	LEU D 304	20.491	80.549	90.088	1.00	19.36	N
ATOM 12502	CA	LEU D 304	20.432	79.533	91.158	1.00	19.40	C
ATOM 12504	CB	LEU D 304	20.355	78.109	90.596	1.00	19.64	C
ATOM 12507	CG	LEU D 304	18.940	77.536	90.438	1.00	20.03	C
ATOM 12509	CD1	LEU D 304	18.427	77.048	91.768	1.00	20.31	C
ATOM 12513	CD2	LEU D 304	17.963	78.561	89.857	1.00	20.21	C
ATOM 12517	C	LEU D 304	21.592	79.660	92.121	1.00	19.18	C
ATOM 12518	O	LEU D 304	21.411	79.508	93.320	1.00	19.22	O
ATOM 12519	N	LYS D 305	22.771	79.978	91.601	1.00	19.09	N
ATOM 12521	CA	LYS D 305	23.942	80.227	92.449	1.00	19.09	C
ATOM 12523	CB	LYS D 305	25.210	80.469	91.609	1.00	19.03	C

161

ATOM 12526	CG	LYS D 305	26.286	79.415	91.827	1.00	19.39	C
ATOM 12529	CD	LYS D 305	27.371	79.478	90.774	1.00	19.76	C
ATOM 12532	CE	LYS D 305	28.747	79.098	91.342	1.00	20.24	C
ATOM 12535	NZ	LYS D 305	29.539	78.242	90.389	1.00	18.52	N
ATOM 12539	C	LYS D 305	23.718	81.390	93.436	1.00	18.96	C
ATOM 12540	O	LYS D 305	24.157	81.307	94.579	1.00	18.44	O
ATOM 12541	N	ALA D 306	23.045	82.459	93.001	1.00	18.73	N
ATOM 12543	CA	ALA D 306	22.747	83.600	93.900	1.00	19.18	C
ATOM 12545	CB	ALA D 306	22.711	84.906	93.108	1.00	19.22	C
ATOM 12549	C	ALA D 306	21.452	83.437	94.724	1.00	18.51	C
ATOM 12550	O	ALA D 306	21.347	83.950	95.826	1.00	18.87	O
ATOM 12551	N	SER D 307	20.507	82.668	94.197	1.00	18.35	N
ATOM 12553	CA	SER D 307	19.182	82.506	94.776	1.00	17.97	C
ATOM 12555	CB	SER D 307	18.174	82.212	93.667	1.00	17.87	C
ATOM 12558	OG	SER D 307	16.940	82.838	93.933	1.00	19.67	O
ATOM 12560	C	SER D 307	19.044	81.407	95.835	1.00	17.63	C
ATOM 12561	O	SER D 307	18.158	81.512	96.717	1.00	17.83	O
ATOM 12562	N	THR D 308	19.881	80.364	95.764	1.00	16.65	N
ATOM 12564	CA	THR D 308	19.637	79.138	96.530	1.00	15.86	C
ATOM 12566	CB	THR D 308	20.696	78.051	96.243	1.00	16.18	C
ATOM 12568	OG1	THR D 308	20.625	77.615	94.870	1.00	14.34	O
ATOM 12570	CG2	THR D 308	20.400	76.778	97.078	1.00	15.13	C
ATOM 12574	C	THR D 308	19.590	79.414	98.026	1.00	15.93	C
ATOM 12575	O	THR D 308	18.659	78.989	98.700	1.00	16.03	O
ATOM 12576	N	ILE D 309	20.586	80.136	98.531	1.00	15.72	N
ATOM 12578	CA	ILE D 309	20.639	80.508	99.940	1.00	15.67	C
ATOM 12580	CB	ILE D 309	21.986	81.201	100.304	1.00	15.54	C
ATOM 12582	CG1	ILE D 309	22.150	81.320	101.835	1.00	16.29	C
ATOM 12585	CD1	ILE D 309	22.250	79.976	102.561	1.00	17.20	C
ATOM 12589	CG2	ILE D 309	22.080	82.580	99.689	1.00	15.04	C
ATOM 12593	C	ILE D 309	19.447	81.382	100.337	1.00	15.85	C
ATOM 12594	O	ILE D 309	18.935	81.268	101.436	1.00	15.28	O
ATOM 12595	N	GLU D 310	19.000	82.252	99.445	1.00	16.15	N
ATOM 12597	CA	GLU D 310	17.871	83.116	99.775	1.00	16.39	C
ATOM 12599	CB	GLU D 310	17.709	84.213	98.740	1.00	16.24	C
ATOM 12602	CG	GLU D 310	18.863	85.197	98.770	1.00	16.79	C
ATOM 12605	CD	GLU D 310	18.715	86.298	97.733	1.00	19.76	C
ATOM 12606	OE1	GLU D 310	17.562	86.586	97.321	1.00	20.43	O
ATOM 12607	OE2	GLU D 310	19.752	86.874	97.318	1.00	21.53	O
ATOM 12608	C	GLU D 310	16.581	82.319	99.929	1.00	16.61	C
ATOM 12609	O	GLU D 310	15.795	82.597	100.825	1.00	16.54	O
ATOM 12610	N	ILE D 311	16.383	81.311	99.077	1.00	16.88	N
ATOM 12612	CA	ILE D 311	15.196	80.455	99.138	1.00	16.43	C
ATOM 12614	CB	ILE D 311	15.024	79.642	97.822	1.00	16.32	C
ATOM 12616	CG1	ILE D 311	14.906	80.573	96.617	1.00	17.54	C
ATOM 12619	CD1	ILE D 311	15.328	79.946	95.329	1.00	18.82	C
ATOM 12623	CG2	ILE D 311	13.786	78.745	97.905	1.00	15.41	C
ATOM 12627	C	ILE D 311	15.282	79.505	100.327	1.00	16.25	C

ATOM 12628	O	ILE D 311	14.278	79.180	100.937	1.00	16.16	O
ATOM 12629	N	MET D 312	16.487	79.047	100.640	1.00	16.61	N
ATOM 12631	CA	MET D 312	16.723	78.240	101.845	1.00	16.86	C
ATOM 12633	CB	MET D 312	18.201	77.871	101.954	1.00	17.19	C
ATOM 12636	CG	MET D 312	18.607	76.768	101.012	1.00	18.43	C
ATOM 12639	SD	MET D 312	20.289	76.170	101.289	1.00	22.20	S
ATOM 12640	CE	MET D 312	20.250	75.803	103.019	1.00	18.61	C
ATOM 12644	C	MET D 312	16.317	79.033	103.068	1.00	16.07	C
ATOM 12645	O	MET D 312	15.593	78.551	103.911	1.00	14.90	O
ATOM 12646	N	LEU D 313	16.768	80.280	103.139	1.00	16.68	N
ATOM 12648	CA	LEU D 313	16.365	81.180	104.223	1.00	17.04	C
ATOM 12650	CB	LEU D 313	17.053	82.525	104.083	1.00	16.94	C
ATOM 12653	CG	LEU D 313	18.547	82.513	104.400	1.00	17.76	C
ATOM 12655	CD1	LEU D 313	19.208	83.823	103.952	1.00	18.34	C
ATOM 12659	CD2	LEU D 313	18.804	82.280	105.860	1.00	19.95	C
ATOM 12663	C	LEU D 313	14.857	81.362	104.305	1.00	16.87	C
ATOM 12664	O	LEU D 313	14.275	81.284	105.387	1.00	17.55	O
ATOM 12665	N	LEU D 314	14.225	81.577	103.168	1.00	17.10	N
ATOM 12667	CA	LEU D 314	12.757	81.688	103.099	1.00	17.60	C
ATOM 12669	CB	LEU D 314	12.306	81.977	101.652	1.00	17.58	C
ATOM 12672	CG	LEU D 314	11.507	83.203	101.229	1.00	17.28	C
ATOM 12674	CD1	LEU D 314	11.771	84.414	102.058	1.00	18.29	C
ATOM 12678	CD2	LEU D 314	11.791	83.517	99.748	1.00	18.10	C
ATOM 12682	C	LEU D 314	12.072	80.418	103.610	1.00	18.05	C
ATOM 12683	O	LEU D 314	11.095	80.498	104.351	1.00	17.73	O
ATOM 12684	N	GLU D 315	12.580	79.244	103.217	1.00	19.15	N
ATOM 12686	CA	GLU D 315	11.977	77.967	103.648	1.00	19.85	C
ATOM 12688	CB	GLU D 315	12.464	76.794	102.804	1.00	20.52	C
ATOM 12691	CG	GLU D 315	11.828	76.749	101.427	1.00	24.01	C
ATOM 12694	CD	GLU D 315	10.377	76.299	101.474	1.00	28.61	C
ATOM 12695	OE1	GLU D 315	10.126	75.141	101.884	1.00	29.90	O
ATOM 12696	OE2	GLU D 315	9.490	77.112	101.095	1.00	32.59	O
ATOM 12697	C	GLU D 315	12.244	77.696	105.119	1.00	18.94	C
ATOM 12698	O	GLU D 315	11.438	77.062	105.804	1.00	18.93	O
ATOM 12699	N	THR D 316	13.377	78.171	105.588	1.00	18.70	N
ATOM 12701	CA	THR D 316	13.721	78.126	107.005	1.00	19.28	C
ATOM 12703	CB	THR D 316	15.175	78.587	107.158	1.00	19.77	C
ATOM 12705	OG1	THR D 316	16.031	77.580	106.594	1.00	18.05	O
ATOM 12707	CG2	THR D 316	15.596	78.680	108.618	1.00	19.73	C
ATOM 12711	C	THR D 316	12.750	78.964	107.855	1.00	19.13	C
ATOM 12712	O	THR D 316	12.172	78.466	108.816	1.00	18.48	O
ATOM 12713	N	ALA D 317	12.519	80.216	107.457	1.00	19.55	N
ATOM 12715	CA	ALA D 317	11.505	81.056	108.120	1.00	19.26	C
ATOM 12717	CB	ALA D 317	11.361	82.387	107.407	1.00	19.52	C
ATOM 12721	C	ALA D 317	10.144	80.373	108.195	1.00	19.33	C
ATOM 12722	O	ALA D 317	9.431	80.420	109.214	1.00	19.73	O
ATOM 12723	N	ARG D 318	9.769	79.737	107.106	1.00	18.89	N
ATOM 12725	CA	ARG D 318	8.474	79.086	107.014	1.00	18.75	C

163

ATOM 12727 CB ARG D 318	8.355	78.550	105.601	1.00	19.48	C
ATOM 12730 CG ARG D 318	7.035	78.003	105.174	1.00	21.64	C
ATOM 12733 CD ARG D 318	7.104	77.675	103.715	1.00	23.82	C
ATOM 12736 NE ARG D 318	5.902	77.083	103.171	1.00	26.12	N
ATOM 12738 CZ ARG D 318	5.640	77.042	101.869	1.00	29.28	C
ATOM 12739 NH1 ARG D 318	6.506	77.561	101.002	1.00	30.16	N
ATOM 12742 NH2 ARG D 318	4.522	76.474	101.415	1.00	30.77	N
ATOM 12745 C ARG D 318	8.358	77.954	108.039	1.00	18.09	C
ATOM 12746 O ARG D 318	7.266	77.599	108.475	1.00	16.87	O
ATOM 12747 N ARG D 319	9.507	77.404	108.429	1.00	17.86	N
ATOM 12749 CA ARG D 319	9.566	76.289	109.364	1.00	18.17	C
ATOM 12751 CB ARG D 319	10.649	75.314	108.919	1.00	18.45	C
ATOM 12754 CG ARG D 319	10.297	74.581	107.673	1.00	19.65	C
ATOM 12757 CD ARG D 319	11.499	74.167	106.866	1.00	23.75	C
ATOM 12760 NE ARG D 319	11.108	73.800	105.512	1.00	26.57	N
ATOM 12762 CZ ARG D 319	10.545	72.656	105.185	1.00	27.80	C
ATOM 12763 NH1 ARG D 319	10.311	71.720	106.116	1.00	29.91	N
ATOM 12766 NH2 ARG D 319	10.221	72.434	103.915	1.00	28.11	N
ATOM 12769 C ARG D 319	9.817	76.724	110.810	1.00	17.72	C
ATOM 12770 O ARG D 319	9.992	75.879	111.699	1.00	17.32	O
ATOM 12771 N TYR D 320	9.826	78.033	111.018	1.00	17.56	N
ATOM 12773 CA TYR D 320	10.042	78.645	112.320	1.00	17.83	C
ATOM 12775 CB TYR D 320	10.654	80.049	112.176	1.00	17.57	C
ATOM 12778 CG TYR D 320	10.784	80.749	113.519	1.00	18.20	C
ATOM 12779 CD1 TYR D 320	11.774	80.365	114.439	1.00	15.63	C
ATOM 12781 CE1 TYR D 320	11.861	80.966	115.671	1.00	15.30	C
ATOM 12783 CZ TYR D 320	10.978	81.978	116.006	1.00	16.00	C
ATOM 12784 OH TYR D 320	11.058	82.594	117.233	1.00	14.76	O
ATOM 12786 CE2 TYR D 320	9.993	82.375	115.115	1.00	17.33	C
ATOM 12788 CD2 TYR D 320	9.903	81.760	113.884	1.00	17.19	C
ATOM 12790 C TYR D 320	8.709	78.737	113.041	1.00	17.54	C
ATOM 12791 O TYR D 320	7.737	79.266	112.524	1.00	17.94	O
ATOM 12792 N ASN D 321	8.672	78.219	114.244	1.00	17.45	N
ATOM 12794 CA ASN D 321	7.494	78.300	115.089	1.00	17.31	C
ATOM 12796 CB ASN D 321	7.158	76.904	115.569	1.00	17.19	C
ATOM 12799 CG ASN D 321	6.001	76.875	116.523	1.00	16.67	C
ATOM 12800 OD1 ASN D 321	5.298	77.873	116.718	1.00	15.79	O
ATOM 12801 ND2 ASN D 321	5.789	75.719	117.120	1.00	13.63	N
ATOM 12804 C ASN D 321	7.801	79.192	116.276	1.00	17.26	C
ATOM 12805 O ASN D 321	8.603	78.820	117.103	1.00	16.90	O
ATOM 12806 N HIS D 322	7.166	80.359	116.364	1.00	18.26	N
ATOM 12808 CA HIS D 322	7.507	81.321	117.422	1.00	18.58	C
ATOM 12810 CB HIS D 322	6.952	82.690	117.149	1.00	18.38	C
ATOM 12813 CG HIS D 322	7.573	83.736	118.016	1.00	18.54	C
ATOM 12814 ND1 HIS D 322	8.931	83.944	118.042	1.00	14.77	N
ATOM 12816 CE1 HIS D 322	9.203	84.920	118.890	1.00	19.42	C
ATOM 12818 NE2 HIS D 322	8.078	85.310	119.460	1.00	19.88	N
ATOM 12820 CD2 HIS D 322	7.039	84.585	118.927	1.00	18.75	C

164

ATOM 12822	C	HIS D 322	7.079	80.954	118.828	1.00	19.14	C
ATOM 12823	O	HIS D 322	7.558	81.530	119.809	1.00	19.70	O
ATOM 12824	N	GLU D 323	6.177	79.993	118.917	1.00	19.44	N
ATOM 12826	CA	GLU D 323	5.685	79.515	120.184	1.00	19.41	C
ATOM 12828	CB	GLU D 323	4.369	78.785	119.928	1.00	19.69	C
ATOM 12831	CG	GLU D 323	3.844	77.968	121.091	1.00	23.22	C
ATOM 12834	CD	GLU D 323	2.563	77.236	120.744	1.00	27.15	C
ATOM 12835	OE1	GLU D 323	2.139	77.295	119.548	1.00	27.89	O
ATOM 12836	OE2	GLU D 323	1.996	76.598	121.673	1.00	30.38	O
ATOM 12837	C	GLU D 323	6.752	78.637	120.882	1.00	18.75	C
ATOM 12838	O	GLU D 323	6.805	78.581	122.096	1.00	18.35	O
ATOM 12839	N	THR D 324	7.590	77.956	120.106	1.00	18.60	N
ATOM 12841	CA	THR D 324	8.732	77.183	120.635	1.00	17.91	C
ATOM 12843	CB	THR D 324	8.750	75.802	119.996	1.00	17.80	C
ATOM 12845	OG1	THR D 324	8.911	75.915	118.574	1.00	17.11	O
ATOM 12847	CG2	THR D 324	7.400	75.115	120.160	1.00	18.66	C
ATOM 12851	C	THR D 324	10.097	77.870	120.380	1.00	17.80	C
ATOM 12852	O	THR D 324	11.111	77.479	120.948	1.00	17.48	O
ATOM 12853	N	GLU D 325	10.090	78.914	119.555	1.00	17.57	N
ATOM 12855	CA	GLU D 325	11.300	79.501	118.966	1.00	17.83	C
ATOM 12857	CB	GLU D 325	12.027	80.386	119.981	1.00	17.92	C
ATOM 12860	CG	GLU D 325	11.079	81.131	120.904	1.00	18.28	C
ATOM 12863	CD	GLU D 325	11.738	82.251	121.674	1.00	19.69	C
ATOM 12864	OE1	GLU D 325	12.984	82.272	121.804	1.00	20.99	O
ATOM 12865	OE2	GLU D 325	10.994	83.139	122.121	1.00	21.52	O
ATOM 12866	C	GLU D 325	12.240	78.474	118.319	1.00	18.09	C
ATOM 12867	O	GLU D 325	13.469	78.631	118.335	1.00	18.16	O
ATOM 12868	N	CYS D 326	11.647	77.437	117.720	1.00	18.28	N
ATOM 12870	CA	CYS D 326	12.401	76.410	117.007	1.00	17.91	C
ATOM 12872	CB	CYS D 326	12.150	75.051	117.624	1.00	17.92	C
ATOM 12875	SG	CYS D 326	12.649	74.925	119.344	1.00	18.22	S
ATOM 12876	C	CYS D 326	12.054	76.338	115.519	1.00	17.96	C
ATOM 12877	O	CYS D 326	10.944	76.665	115.101	1.00	18.19	O
ATOM 12878	N	ILE D 327	13.034	75.888	114.742	1.00	17.75	N
ATOM 12880	CA	ILE D 327	12.900	75.613	113.323	1.00	17.34	C
ATOM 12882	CB	ILE D 327	14.136	76.136	112.612	1.00	17.02	C
ATOM 12884	CG1	ILE D 327	14.286	77.628	112.899	1.00	17.08	C
ATOM 12887	CD1	ILE D 327	15.587	78.220	112.465	1.00	17.70	C
ATOM 12891	CG2	ILE D 327	14.025	75.866	111.136	1.00	17.70	C
ATOM 12895	C	ILE D 327	12.763	74.097	113.070	1.00	17.29	C
ATOM 12896	O	ILE D 327	13.614	73.329	113.483	1.00	17.13	O
ATOM 12897	N	THR D 328	11.699	73.675	112.392	1.00	16.97	N
ATOM 12899	CA	THR D 328	11.520	72.276	112.073	1.00	17.07	C
ATOM 12901	CB	THR D 328	10.077	71.848	112.382	1.00	17.04	C
ATOM 12903	OG1	THR D 328	9.910	71.755	113.810	1.00	18.69	O
ATOM 12905	CG2	THR D 328	9.811	70.421	111.928	1.00	17.50	C
ATOM 12909	C	THR D 328	11.915	71.941	110.625	1.00	17.06	C
ATOM 12910	O	THR D 328	11.235	72.336	109.689	1.00	16.34	O

ATOM 12911	N	PHE D 329	13.025	71.215	110.464	1.00	16.80	N
ATOM 12913	CA	PHE D 329	13.433	70.649	109.163	1.00	16.73	C
ATOM 12915	CB	PHE D 329	14.947	70.610	109.061	1.00	16.33	C
ATOM 12918	CG	PHE D 329	15.599	71.944	109.248	1.00	16.35	C
ATOM 12919	CD1	PHE D 329	16.548	72.131	110.232	1.00	16.46	C
ATOM 12921	CE1	PHE D 329	17.153	73.366	110.407	1.00	17.18	C
ATOM 12923	CZ	PHE D 329	16.793	74.444	109.601	1.00	16.19	C
ATOM 12925	CE2	PHE D 329	15.846	74.276	108.617	1.00	16.57	C
ATOM 12927	CD2	PHE D 329	15.250	73.029	108.437	1.00	17.38	C
ATOM 12929	C	PHE D 329	12.855	69.231	108.981	1.00	16.91	C
ATOM 12930	O	PHE D 329	12.749	68.487	109.939	1.00	16.26	O
ATOM 12931	N	LEU D 330	12.446	68.891	107.758	1.00	17.66	N
ATOM 12933	CA	LEU D 330	11.826	67.595	107.464	1.00	18.92	C
ATOM 12935	CB	LEU D 330	12.834	66.430	107.679	1.00	18.97	C
ATOM 12938	CG	LEU D 330	14.223	66.578	107.022	1.00	19.75	C
ATOM 12940	CD1	LEU D 330	14.981	65.279	107.018	1.00	21.17	C
ATOM 12944	CD2	LEU D 330	14.125	67.091	105.588	1.00	21.19	C
ATOM 12948	C	LEU D 330	10.506	67.396	108.233	1.00	19.73	C
ATOM 12949	O	LEU D 330	9.634	68.249	108.180	1.00	19.79	O
ATOM 12950	N	LYS D 331	10.335	66.262	108.905	1.00	21.46	N
ATOM 12952	CA	LYS D 331	9.118	66.001	109.669	1.00	22.37	C
ATOM 12954	CB	LYS D 331	8.794	64.494	109.636	1.00	22.37	C
ATOM 12957	CG	LYS D 331	7.361	64.127	110.081	1.00	22.45	C
ATOM 12960	CD	LYS D 331	7.120	62.615	110.109	1.00	23.00	C
ATOM 12963	CE	LYS D 331	5.755	62.248	110.728	1.00	23.00	C
ATOM 12966	NZ	LYS D 331	5.570	60.770	110.919	1.00	20.66	N
ATOM 12970	C	LYS D 331	9.300	66.503	111.106	1.00	23.16	C
ATOM 12971	O	LYS D 331	8.596	67.404	111.550	1.00	24.15	O
ATOM 12972	N	ASP D 332	10.292	65.945	111.797	1.00	24.04	N
ATOM 12974	CA	ASP D 332	10.420	66.028	113.263	1.00	24.26	C
ATOM 12976	CB	ASP D 332	10.373	64.604	113.875	1.00	24.72	C
ATOM 12979	CG	ASP D 332	9.113	63.836	113.527	1.00	26.74	C
ATOM 12980	OD1	ASP D 332	8.089	63.993	114.237	1.00	30.75	O
ATOM 12981	OD2	ASP D 332	9.063	63.013	112.588	1.00	29.44	O
ATOM 12982	C	ASP D 332	11.735	66.653	113.749	1.00	23.27	C
ATOM 12983	O	ASP D 332	11.973	66.685	114.952	1.00	23.21	O
ATOM 12984	N	PHE D 333	12.612	67.078	112.842	1.00	22.47	N
ATOM 12986	CA	PHE D 333	13.938	67.558	113.247	1.00	21.94	C
ATOM 12988	CB	PHE D 333	14.982	67.321	112.140	1.00	21.90	C
ATOM 12991	CG	PHE D 333	15.239	65.857	111.836	1.00	21.19	C
ATOM 12992	CD1	PHE D 333	15.286	65.397	110.526	1.00	22.30	C
ATOM 12994	CE1	PHE D 333	15.531	64.027	110.248	1.00	21.21	C
ATOM 12996	CZ	PHE D 333	15.736	63.149	111.279	1.00	20.04	C
ATOM 12998	CE2	PHE D 333	15.705	63.600	112.586	1.00	20.23	C
ATOM 13000	CD2	PHE D 333	15.456	64.941	112.860	1.00	21.17	C
ATOM 13002	C	PHE D 333	13.851	69.032	113.657	1.00	21.78	C
ATOM 13003	O	PHE D 333	13.855	69.928	112.817	1.00	21.60	O
ATOM 13004	N	THR D 334	13.746	69.264	114.966	1.00	21.52	N

ATOM 13006	CA THR D 334	13.354	70.566	115.523	1.00	21.15	C
ATOM 13008	CB THR D 334	12.076	70.373	116.346	1.00	21.06	C
ATOM 13010	OG1 THR D 334	11.013	70.024	115.458	1.00	22.39	O
ATOM 13012	CG2 THR D 334	11.601	71.667	117.000	1.00	20.50	C
ATOM 13016	C THR D 334	14.473	71.119	116.391	1.00	20.64	C
ATOM 13017	O THR D 334	14.993	70.410	117.256	1.00	21.61	O
ATOM 13018	N TYR D 335	14.821	72.382	116.174	1.00	19.47	N
ATOM 13020	CA TYR D 335	16.045	72.956	116.709	1.00	18.85	C
ATOM 13022	CB TYR D 335	17.151	72.911	115.633	1.00	18.58	C
ATOM 13025	CG TYR D 335	17.442	71.498	115.222	1.00	19.49	C
ATOM 13026	CD1 TYR D 335	17.247	71.067	113.926	1.00	18.92	C
ATOM 13028	CE1 TYR D 335	17.492	69.744	113.583	1.00	20.64	C
ATOM 13030	CZ TYR D 335	17.918	68.850	114.547	1.00	18.93	C
ATOM 13031	OH TYR D 335	18.156	67.535	114.226	1.00	22.78	O
ATOM 13033	CE2 TYR D 335	18.106	69.255	115.831	1.00	19.01	C
ATOM 13035	CD2 TYR D 335	17.863	70.559	116.173	1.00	20.56	C
ATOM 13037	C TYR D 335	15.864	74.383	117.184	1.00	17.90	C
ATOM 13038	O TYR D 335	15.299	75.200	116.469	1.00	17.11	O
ATOM 13039	N SER D 336	16.361	74.656	118.388	1.00	17.04	N
ATOM 13041	CA SER D 336	16.422	76.008	118.966	1.00	16.74	C
ATOM 13043	CB SER D 336	16.370	75.896	120.488	1.00	16.83	C
ATOM 13046	OG SER D 336	17.539	75.217	120.966	1.00	15.76	O
ATOM 13048	C SER D 336	17.738	76.715	118.596	1.00	16.17	C
ATOM 13049	O SER D 336	18.640	76.105	118.069	1.00	14.89	O
ATOM 13050	N LYS D 337	17.841	78.005	118.892	1.00	16.72	N
ATOM 13052	CA LYS D 337	19.128	78.708	118.826	1.00	17.06	C
ATOM 13054	CB LYS D 337	19.050	80.027	119.578	1.00	16.51	C
ATOM 13057	CG LYS D 337	18.776	81.191	118.672	1.00	15.93	C
ATOM 13060	CD LYS D 337	18.930	82.497	119.394	1.00	14.66	C
ATOM 13063	CE LYS D 337	18.332	83.573	118.544	1.00	15.20	C
ATOM 13066	NZ LYS D 337	18.517	84.917	119.049	1.00	10.93	N
ATOM 13070	C LYS D 337	20.270	77.875	119.438	1.00	17.88	C
ATOM 13071	O LYS D 337	21.382	77.794	118.903	1.00	17.72	O
ATOM 13072	N ASP D 338	19.980	77.245	120.567	1.00	18.12	N
ATOM 13074	CA ASP D 338	21.020	76.548	121.270	1.00	18.82	C
ATOM 13076	CB ASP D 338	20.553	76.052	122.634	1.00	19.01	C
ATOM 13079	CG ASP D 338	21.628	76.157	123.630	1.00	20.94	C
ATOM 13080	OD1 ASP D 338	22.111	75.106	124.095	1.00	22.65	O
ATOM 13081	OD2 ASP D 338	22.092	77.274	123.956	1.00	24.02	O
ATOM 13082	C ASP D 338	21.599	75.405	120.463	1.00	18.23	C
ATOM 13083	O ASP D 338	22.796	75.212	120.476	1.00	18.26	O
ATOM 13084	N ASP D 339	20.757	74.662	119.756	1.00	18.03	N
ATOM 13086	CA ASP D 339	21.239	73.572	118.897	1.00	17.64	C
ATOM 13088	CB ASP D 339	20.076	72.795	118.327	1.00	17.74	C
ATOM 13091	CG ASP D 339	19.237	72.203	119.390	1.00	19.52	C
ATOM 13092	OD1 ASP D 339	19.816	71.651	120.345	1.00	21.13	O
ATOM 13093	OD2 ASP D 339	17.994	72.259	119.379	1.00	23.92	O
ATOM 13094	C ASP D 339	22.117	74.056	117.758	1.00	16.92	C

167

ATOM 13095	O	ASPD 339	23.059	73.373	117.360	1.00	15.53	O
ATOM 13096	N	PHE D 340	21.819	75.233	117.222	1.00	16.37	N
ATOM 13098	CA	PHE D 340	22.664	75.743	116.153	1.00	16.21	C
ATOM 13100	CB	PHE D 340	21.995	76.888	115.419	1.00	15.86	C
ATOM 13103	CG	PHE D 340	20.819	76.452	114.618	1.00	15.58	C
ATOM 13104	CD1	PHE D 340	19.536	76.601	115.103	1.00	14.28	C
ATOM 13106	CE1	PHE D 340	18.447	76.189	114.357	1.00	13.86	C
ATOM 13108	CZ	PHE D 340	18.628	75.599	113.142	1.00	13.49	C
ATOM 13110	CE2	PHE D 340	19.894	75.423	112.650	1.00	14.38	C
ATOM 13112	CD2	PHE D 340	20.992	75.846	113.389	1.00	15.91	C
ATOM 13114	C	PHE D 340	24.045	76.109	116.658	1.00	16.12	C
ATOM 13115	O	PHE D 340	25.034	75.841	115.995	1.00	16.50	O
ATOM 13116	N	HIS D 341	24.111	76.712	117.834	1.00	16.63	N
ATOM 13118	CA	HIS D 341	25.386	77.143	118.384	1.00	16.82	C
ATOM 13120	CB	HIS D 341	25.219	78.056	119.599	1.00	17.15	C
ATOM 13123	CG	HIS D 341	26.480	78.792	119.946	1.00	19.44	C
ATOM 13124	ND1	HIS D 341	27.128	79.614	119.047	1.00	21.11	N
ATOM 13126	CE1	HIS D 341	28.218	80.105	119.611	1.00	22.20	C
ATOM 13128	NE2	HIS D 341	28.307	79.626	120.839	1.00	21.65	N
ATOM 13130	CD2	HIS D 341	27.240	78.790	121.068	1.00	21.17	C
ATOM 13132	C	HIS D 341	26.231	75.949	118.753	1.00	16.10	C
ATOM 13133	O	HIS D 341	27.440	75.986	118.597	1.00	15.56	O
ATOM 13134	N	ARG D 342	25.571	74.886	119.205	1.00	15.87	N
ATOM 13136	CA	ARG D 342	26.224	73.620	119.568	1.00	16.07	C
ATOM 13138	CB	ARG D 342	25.207	72.687	120.229	1.00	16.05	C
ATOM 13141	CG	ARG D 342	24.788	73.102	121.623	1.00	17.32	C
ATOM 13144	CD	ARG D 342	24.621	71.926	122.539	1.00	21.25	C
ATOM 13147	NE	ARG D 342	23.364	71.878	123.275	1.00	23.52	N
ATOM 13149	CZ	ARG D 342	23.038	70.870	124.098	1.00	25.50	C
ATOM 13150	NH1	ARG D 342	23.869	69.835	124.275	1.00	24.03	N
ATOM 13153	NH2	ARG D 342	21.877	70.897	124.752	1.00	26.29	N
ATOM 13156	C	ARG D 342	26.868	72.879	118.378	1.00	15.73	C
ATOM 13157	O	ARG D 342	27.777	72.055	118.571	1.00	15.89	O
ATOM 13158	N	ALA D 343	26.367	73.143	117.170	1.00	15.13	N
ATOM 13160	CA	ALA D 343	26.960	72.634	115.929	1.00	15.14	C
ATOM 13162	CB	ALA D 343	25.902	72.529	114.834	1.00	15.08	C
ATOM 13166	C	ALA D 343	28.113	73.519	115.449	1.00	14.86	C
ATOM 13167	O	ALA D 343	28.660	73.303	114.386	1.00	14.33	O
ATOM 13168	N	GLY D 344	28.441	74.547	116.214	1.00	15.18	N
ATOM 13170	CA	GLY D 344	29.626	75.336	115.959	1.00	15.39	C
ATOM 13173	C	GLY D 344	29.379	76.548	115.109	1.00	15.41	C
ATOM 13174	O	GLY D 344	30.318	77.254	114.767	1.00	15.98	O
ATOM 13175	N	LEU D 345	28.127	76.801	114.763	1.00	15.74	N
ATOM 13177	CA	LEU D 345	27.800	77.972	113.955	1.00	16.56	C
ATOM 13179	CB	LEU D 345	26.405	77.838	113.337	1.00	16.66	C
ATOM 13182	CG	LEU D 345	26.208	76.577	112.502	1.00	17.17	C
ATOM 13184	CD1	LEU D 345	24.875	76.607	111.832	1.00	17.49	C
ATOM 13188	CD2	LEU D 345	27.314	76.427	111.457	1.00	19.65	C

168

ATOM 13192	C	LEU D 345	27.912	79.257	114.784	1.00	16.89	C
ATOM 13193	O	LEU D 345	27.621	79.268	115.996	1.00	17.01	O
ATOM 13194	N	GLN D 346	28.342	80.327	114.116	1.00	17.06	N
ATOM 13196	CA	GLN D 346	28.632	81.607	114.760	1.00	17.19	C
ATOM 13198	CB	GLN D 346	29.423	82.522	113.814	1.00	17.60	C
ATOM 13201	CG	GLN D 346	30.644	81.878	113.171	1.00	18.33	C
ATOM 13204	CD	GLN D 346	31.568	81.261	114.198	1.00	20.92	C
ATOM 13205	OE1	GLN D 346	32.017	81.946	115.117	1.00	21.20	O
ATOM 13206	NE2	GLN D 346	31.856	79.963	114.050	1.00	23.47	N
ATOM 13209	C	GLN D 346	27.338	82.297	115.154	1.00	17.01	C
ATOM 13210	O	GLN D 346	26.332	82.137	114.474	1.00	16.46	O
ATOM 13211	N	VAL D 347	27.374	83.062	116.248	1.00	17.07	N
ATOM 13213	CA	VAL D 347	26.223	83.862	116.681	1.00	17.24	C
ATOM 13215	CB	VAL D 347	26.372	84.370	118.164	1.00	17.60	C
ATOM 13217	CG1	VAL D 347	25.872	85.805	118.358	1.00	17.35	C
ATOM 13221	CG2	VAL D 347	25.592	83.430	119.085	1.00	18.18	C
ATOM 13225	C	VAL D 347	25.925	84.985	115.680	1.00	16.88	C
ATOM 13226	O	VAL D 347	24.769	85.279	115.414	1.00	16.62	O
ATOM 13227	N	GLU D 348	26.960	85.555	115.073	1.00	17.02	N
ATOM 13229	CA	GLU D 348	26.776	86.529	113.980	1.00	17.07	C
ATOM 13231	CB	GLU D 348	28.140	86.949	113.415	1.00	17.09	C
ATOM 13234	CG	GLU D 348	28.975	87.801	114.359	1.00	16.95	C
ATOM 13237	CD	GLU D 348	29.917	87.001	115.260	1.00	17.25	C
ATOM 13238	OE1	GLU D 348	29.938	85.753	115.213	1.00	15.66	O
ATOM 13239	OE2	GLU D 348	30.637	87.642	116.048	1.00	17.91	O
ATOM 13240	C	GLU D 348	25.890	86.012	112.820	1.00	17.19	C
ATOM 13241	O	GLU D 348	25.370	86.800	112.015	1.00	17.00	O
ATOM 13242	N	PHE D 349	25.754	84.686	112.733	1.00	17.57	N
ATOM 13244	CA	PHE D 349	24.993	83.991	111.690	1.00	17.56	C
ATOM 13246	CB	PHE D 349	25.837	82.795	111.226	1.00	18.32	C
ATOM 13249	CG	PHE D 349	25.294	82.031	110.029	1.00	22.06	C
ATOM 13250	CD1	PHE D 349	24.759	82.679	108.924	1.00	24.50	C
ATOM 13252	CE1	PHE D 349	24.319	81.950	107.818	1.00	24.67	C
ATOM 13254	CZ	PHE D 349	24.425	80.574	107.808	1.00	25.29	C
ATOM 13256	CE2	PHE D 349	24.965	79.911	108.899	1.00	25.21	C
ATOM 13258	CD2	PHE D 349	25.409	80.632	109.989	1.00	24.56	C
ATOM 13260	C	PHE D 349	23.657	83.539	112.268	1.00	16.59	C
ATOM 13261	O	PHE D 349	22.601	83.689	111.625	1.00	17.28	O
ATOM 13262	N	ILE D 350	23.667	83.033	113.504	1.00	14.79	N
ATOM 13264	CA	ILE D 350	22.426	82.522	114.080	1.00	13.52	C
ATOM 13266	CB	ILE D 350	22.703	81.689	115.349	1.00	13.14	C
ATOM 13268	CG1	ILE D 350	23.477	80.427	115.004	1.00	12.85	C
ATOM 13271	CD1	ILE D 350	24.246	79.916	116.203	1.00	12.77	C
ATOM 13275	CG2	ILE D 350	21.415	81.277	116.076	1.00	11.63	C
ATOM 13279	C	ILE D 350	21.430	83.662	114.365	1.00	13.33	C
ATOM 13280	O	ILE D 350	20.234	83.535	114.069	1.00	12.57	O
ATOM 13281	N	ASN D 351	21.905	84.757	114.959	1.00	12.77	N
ATOM 13283	CA	ASN D 351	20.970	85.791	115.419	1.00	12.60	C

169

ATOM 13285	CB ASN D 351	21.639	86.826	116.351	1.00	11.66	C
ATOM 13288	CG ASN D 351	21.914	86.250	117.738	1.00	11.41	C
ATOM 13289	OD1 ASN D 351	21.364	85.223	118.101	1.00	11.58	O
ATOM 13290	ND2 ASN D 351	22.777	86.898	118.506	1.00	10.28	N
ATOM 13293	C ASN D 351	20.175	86.415	114.272	1.00	12.17	C
ATOM 13294	O ASN D 351	18.971	86.361	114.321	1.00	12.15	O
ATOM 13295	N PRO D 352	20.811	86.935	113.223	1.00	12.68	N
ATOM 13296	CA PRO D 352	20.048	87.518	112.090	1.00	12.89	C
ATOM 13298	CB PRO D 352	21.149	87.956	111.116	1.00	12.57	C
ATOM 13301	CG PRO D 352	22.367	88.225	112.029	1.00	12.50	C
ATOM 13304	CD PRO D 352	22.271	87.046	113.004	1.00	12.68	C
ATOM 13307	C PRO D 352	19.036	86.580	111.399	1.00	13.07	C
ATOM 13308	O PRO D 352	18.056	87.078	110.891	1.00	13.51	O
ATOM 13309	N ILE D 353	19.271	85.273	111.360	1.00	14.77	N
ATOM 13311	CA ILE D 353	18.375	84.337	110.666	1.00	15.44	C
ATOM 13313	CB ILE D 353	19.061	83.008	110.399	1.00	15.39	C
ATOM 13315	CG1 ILE D 353	20.047	83.132	109.239	1.00	17.58	C
ATOM 13318	CD1 ILE D 353	20.850	81.852	108.991	1.00	18.21	C
ATOM 13322	CG2 ILE D 353	18.073	81.938	110.012	1.00	16.28	C
ATOM 13326	C ILE D 353	17.139	84.120	111.511	1.00	16.28	C
ATOM 13327	O ILE D 353	16.029	84.022	110.985	1.00	16.70	O
ATOM 13328	N PHE D 354	17.338	84.049	112.824	1.00	16.01	N
ATOM 13330	CA PHE D 354	16.226	83.954	113.731	1.00	16.18	C
ATOM 13332	CB PHE D 354	16.669	83.566	115.167	1.00	16.26	C
ATOM 13335	CG PHE D 354	16.669	82.083	115.390	1.00	14.24	C
ATOM 13336	CD1 PHE D 354	17.727	81.308	114.940	1.00	13.74	C
ATOM 13338	CE1 PHE D 354	17.726	79.933	115.104	1.00	14.59	C
ATOM 13340	CZ PHE D 354	16.637	79.313	115.725	1.00	15.36	C
ATOM 13342	CE2 PHE D 354	15.558	80.077	116.155	1.00	13.49	C
ATOM 13344	CD2 PHE D 354	15.575	81.459	115.969	1.00	14.41	C
ATOM 13346	C PHE D 354	15.374	85.207	113.695	1.00	16.36	C
ATOM 13347	O PHE D 354	14.169	85.085	113.682	1.00	16.51	O
ATOM 13348	N GLU D 355	15.947	86.398	113.631	1.00	17.38	N
ATOM 13350	CA GLU D 355	15.079	87.570	113.629	1.00	18.65	C
ATOM 13352	CB GLU D 355	15.769	88.844	114.123	1.00	20.16	C
ATOM 13355	CG GLU D 355	16.542	89.686	113.143	1.00	23.24	C
ATOM 13358	CD GLU D 355	17.096	90.915	113.836	1.00	27.30	C
ATOM 13359	OE1 GLU D 355	18.059	90.773	114.611	1.00	32.29	O
ATOM 13360	OE2 GLU D 355	16.566	92.016	113.640	1.00	31.79	O
ATOM 13361	C GLU D 355	14.411	87.773	112.301	1.00	18.02	C
ATOM 13362	O GLU D 355	13.314	88.305	112.252	1.00	17.33	O
ATOM 13363	N PHE D 356	15.048	87.310	111.224	1.00	18.12	N
ATOM 13365	CA PHE D 356	14.381	87.291	109.929	1.00	17.54	C
ATOM 13367	CB PHE D 356	15.316	86.833	108.843	1.00	18.10	C
ATOM 13370	CG PHE D 356	14.651	86.667	107.510	1.00	19.20	C
ATOM 13371	CD1 PHE D 356	14.415	87.763	106.699	1.00	18.84	C
ATOM 13373	CE1 PHE D 356	13.804	87.595	105.438	1.00	19.22	C
ATOM 13375	CZ PHE D 356	13.439	86.342	105.003	1.00	17.86	C

170

ATOM	13377	CE2 PHE D 356	13.683	85.238	105.803	1.00	20.18	C
ATOM	13379	CD2 PHE D 356	14.280	85.399	107.055	1.00	19.82	C
ATOM	13381	C PHE D 356	13.177	86.371	110.011	1.00	17.21	C
ATOM	13382	O PHE D 356	12.080	86.744	109.577	1.00	16.56	O
ATOM	13383	N SER D 357	13.374	85.197	110.614	1.00	16.08	N
ATOM	13385	CA SER D 357	12.318	84.231	110.733	1.00	16.00	C
ATOM	13387	CB SER D 357	12.863	82.921	111.322	1.00	16.71	C
ATOM	13390	OG SER D 357	13.823	82.288	110.449	1.00	14.50	O
ATOM	13392	C SER D 357	11.159	84.782	111.564	1.00	16.84	C
ATOM	13393	O SER D 357	9.994	84.544	111.260	1.00	16.43	O
ATOM	13394	N ARG D 358	11.473	85.568	112.596	1.00	16.89	N
ATOM	13396	CA ARG D 358	10.436	86.112	113.474	1.00	16.31	C
ATOM	13398	CB ARG D 358	11.060	86.830	114.662	1.00	16.33	C
ATOM	13401	CG ARG D 358	11.152	86.056	115.934	1.00	17.48	C
ATOM	13404	CD ARG D 358	11.729	86.912	117.052	1.00	20.26	C
ATOM	13407	NE ARG D 358	13.018	86.354	117.301	1.00	25.96	N
ATOM	13409	CZ ARG D 358	14.194	86.947	117.218	1.00	22.65	C
ATOM	13410	NH1 ARG D 358	14.354	88.238	116.956	1.00	19.07	N
ATOM	13413	NH2 ARG D 358	15.242	86.175	117.439	1.00	22.42	N
ATOM	13416	C ARG D 358	9.598	87.118	112.705	1.00	16.20	C
ATOM	13417	O ARG D 358	8.374	87.170	112.844	1.00	15.37	O
ATOM	13418	N ALA D 359	10.269	87.947	111.920	1.00	16.45	N
ATOM	13420	CA ALA D 359	9.580	88.987	111.148	1.00	17.28	C
ATOM	13422	CB ALA D 359	10.582	89.941	110.512	1.00	17.05	C
ATOM	13426	C ALA D 359	8.690	88.361	110.087	1.00	17.53	C
ATOM	13427	O ALA D 359	7.560	88.798	109.876	1.00	17.97	O
ATOM	13428	N MET D 360	9.199	87.316	109.449	1.00	18.83	N
ATOM	13430	CA MET D 360	8.457	86.585	108.422	1.00	19.27	C
ATOM	13432	CB MET D 360	9.323	85.473	107.835	1.00	18.85	C
ATOM	13435	CG MET D 360	10.382	85.957	106.843	1.00	18.94	C
ATOM	13438	SD MET D 360	9.743	86.806	105.396	1.00	21.35	S
ATOM	13439	CE MET D 360	8.502	85.627	104.774	1.00	21.00	C
ATOM	13443	C MET D 360	7.170	86.016	109.002	1.00	20.13	C
ATOM	13444	O MET D 360	6.100	86.129	108.400	1.00	18.70	O
ATOM	13445	N ARG D 361	7.290	85.447	110.201	1.00	21.90	N
ATOM	13447	CA ARG D 361	6.174	84.834	110.907	1.00	23.42	C
ATOM	13449	CB ARG D 361	6.665	84.197	112.191	1.00	24.79	C
ATOM	13452	CG ARG D 361	5.692	83.203	112.775	1.00	28.89	C
ATOM	13455	CD ARG D 361	5.643	81.963	111.923	1.00	34.68	C
ATOM	13458	NE ARG D 361	4.583	81.042	112.295	1.00	38.61	N
ATOM	13460	CZ ARG D 361	4.120	80.118	111.473	1.00	42.14	C
ATOM	13461	NH1 ARG D 361	4.604	80.026	110.229	1.00	42.41	N
ATOM	13464	NH2 ARG D 361	3.158	79.289	111.888	1.00	43.94	N
ATOM	13467	C ARG D 361	5.104	85.821	111.286	1.00	23.42	C
ATOM	13468	O ARG D 361	3.925	85.477	111.342	1.00	24.04	O
ATOM	13469	N ARG D 362	5.513	87.049	111.563	1.00	23.68	N
ATOM	13471	CA ARG D 362	4.559	88.113	111.885	1.00	24.21	C
ATOM	13473	CB ARG D 362	5.279	89.325	112.489	1.00	24.12	C

171

ATOM 13476	CG ARG D 362	5.563	89.158	113.981	1.00	25.37	C
ATOM 13479	CD ARG D 362	6.124	90.408	114.669	1.00	26.49	C
ATOM 13482	NE ARG D 362	7.586	90.354	114.718	1.00	30.15	N
ATOM 13484	CZ ARG D 362	8.404	91.159	114.060	1.00	31.30	C
ATOM 13485	NH1 ARG D 362	7.928	92.133	113.290	1.00	35.68	N
ATOM 13488	NH2 ARG D 362	9.710	90.997	114.171	1.00	29.73	N
ATOM 13491	C ARG D 362	3.746	88.544	110.672	1.00	24.10	C
ATOM 13492	O ARG D 362	2.708	89.182	110.819	1.00	24.95	O
ATOM 13493	N LEU D 363	4.223	88.234	109.473	1.00	24.23	N
ATOM 13495	CA LEU D 363	3.463	88.535	108.258	1.00	24.15	C
ATOM 13497	CB LEU D 363	4.364	88.621	107.041	1.00	24.08	C
ATOM 13500	CG LEU D 363	5.141	89.911	106.879	1.00	24.30	C
ATOM 13502	CD1 LEU D 363	6.031	89.758	105.676	1.00	25.29	C
ATOM 13506	CD2 LEU D 363	4.207	91.108	106.715	1.00	24.59	C
ATOM 13510	C LEU D 363	2.373	87.517	107.999	1.00	23.86	C
ATOM 13511	O LEU D 363	1.339	87.850	107.438	1.00	23.41	O
ATOM 13512	N GLY D 364	2.617	86.281	108.413	1.00	24.24	N
ATOM 13514	CA GLY D 364	1.635	85.214	108.287	1.00	24.01	C
ATOM 13517	C GLY D 364	1.352	84.865	106.846	1.00	23.85	C
ATOM 13518	O GLY D 364	0.206	84.788	106.464	1.00	24.01	O
ATOM 13519	N LEU D 365	2.392	84.664	106.046	1.00	24.07	N
ATOM 13521	CA LEU D 365	2.221	84.279	104.650	1.00	24.58	C
ATOM 13523	CB LEU D 365	3.551	84.294	103.909	1.00	24.35	C
ATOM 13526	CG LEU D 365	4.442	85.522	103.945	1.00	25.06	C
ATOM 13528	CD1 LEU D 365	5.344	85.532	102.705	1.00	25.33	C
ATOM 13532	CD2 LEU D 365	3.626	86.776	104.042	1.00	26.01	C
ATOM 13536	C LEU D 365	1.638	82.874	104.514	1.00	24.93	C
ATOM 13537	O LEU D 365	2.138	81.940	105.150	1.00	25.34	O
ATOM 13538	N ASP D 366	0.607	82.718	103.681	1.00	25.11	N
ATOM 13540	CA ASP D 366	0.110	81.372	103.345	1.00	25.42	C
ATOM 13542	CB ASP D 366	-1.384	81.354	102.926	1.00	24.99	C
ATOM 13545	CG ASP D 366	-1.745	82.380	101.854	1.00	25.12	C
ATOM 13546	OD1 ASP D 366	-0.865	82.799	101.070	1.00	24.72	O
ATOM 13547	OD2 ASP D 366	-2.922	82.802	101.710	1.00	23.98	O
ATOM 13548	C ASP D 366	1.046	80.691	102.330	1.00	25.60	C
ATOM 13549	O ASP D 366	2.121	81.211	102.031	1.00	25.84	O
ATOM 13550	N ASP D 367	0.670	79.517	101.838	1.00	25.74	N
ATOM 13552	CA ASP D 367	1.551	78.763	100.945	1.00	25.71	C
ATOM 13554	CB ASP D 367	0.983	77.363	100.678	1.00	25.96	C
ATOM 13557	CG ASP D 367	0.888	76.510	101.927	1.00	25.99	C
ATOM 13558	OD1 ASP D 367	1.788	76.575	102.787	1.00	25.17	O
ATOM 13559	OD2 ASP D 367	-0.069	75.733	102.118	1.00	27.86	O
ATOM 13560	C ASP D 367	1.730	79.477	99.605	1.00	25.15	C
ATOM 13561	O ASP D 367	2.827	79.503	99.038	1.00	25.46	O
ATOM 13562	N ALA D 368	0.641	80.040	99.099	1.00	24.22	N
ATOM 13564	CA ALA D 368	0.673	80.766	97.833	1.00	23.64	C
ATOM 13566	CB ALA D 368	-0.708	81.318	97.506	1.00	23.61	C
ATOM 13570	C ALA D 368	1.681	81.902	97.872	1.00	23.10	C

172

ATOM 13571	O	ALA D 368	2.428	82.111	96.905	1.00	23.25	O
ATOM 13572	N	GLU D 369	1.691	82.629	98.990	1.00	22.03	N
ATOM 13574	CA	GLU D 369	2.511	83.816	99.117	1.00	21.31	C
ATOM 13576	CB	GLU D 369	2.104	84.634	100.365	1.00	21.22	C
ATOM 13579	CG	GLU D 369	0.813	85.424	100.102	1.00	20.90	C
ATOM 13582	CD	GLU D 369	0.153	86.072	101.321	1.00	19.79	C
ATOM 13583	OE1	GLU D 369	-0.415	87.168	101.153	1.00	17.89	O
ATOM 13584	OE2	GLU D 369	0.144	85.494	102.423	1.00	17.91	O
ATOM 13585	C	GLU D 369	3.975	83.418	99.081	1.00	20.93	C
ATOM 13586	O	GLU D 369	4.744	84.004	98.322	1.00	20.49	O
ATOM 13587	N	TYR D 370	4.345	82.395	99.857	1.00	20.98	N
ATOM 13589	CA	TYR D 370	5.727	81.892	99.878	1.00	21.12	C
ATOM 13591	CB	TYR D 370	5.896	80.742	100.896	1.00	21.08	C
ATOM 13594	CG	TYR D 370	6.216	81.184	102.311	1.00	21.99	C
ATOM 13595	CD1	TYR D 370	5.260	81.100	103.337	1.00	23.12	C
ATOM 13597	CE1	TYR D 370	5.558	81.534	104.663	1.00	21.94	C
ATOM 13599	CZ	TYR D 370	6.810	82.049	104.957	1.00	23.03	C
ATOM 13600	OH	TYR D 370	7.112	82.479	106.263	1.00	25.50	O
ATOM 13602	CE2	TYR D 370	7.774	82.153	103.950	1.00	21.94	C
ATOM 13604	CD2	TYR D 370	7.475	81.716	102.636	1.00	23.21	C
ATOM 13606	C	TYR D 370	6.166	81.444	98.474	1.00	21.05	C
ATOM 13607	O	TYR D 370	7.297	81.665	98.047	1.00	21.37	O
ATOM 13608	N	ALA D 371	5.251	80.834	97.740	1.00	21.17	N
ATOM 13610	CA	ALA D 371	5.563	80.263	96.418	1.00	20.62	C
ATOM 13612	CB	ALA D 371	4.501	79.315	96.045	1.00	20.58	C
ATOM 13616	C	ALA D 371	5.752	81.321	95.300	1.00	20.48	C
ATOM 13617	O	ALA D 371	6.556	81.153	94.317	1.00	20.25	O
ATOM 13618	N	LEU D 372	5.015	82.418	95.477	1.00	20.23	N
ATOM 13620	CA	LEU D 372	5.093	83.563	94.584	1.00	19.99	C
ATOM 13622	CB	LEU D 372	3.827	84.413	94.692	1.00	19.96	C
ATOM 13625	CG	LEU D 372	2.626	83.838	93.941	1.00	20.08	C
ATOM 13627	CD1	LEU D 372	1.315	84.479	94.375	1.00	19.70	C
ATOM 13631	CD2	LEU D 372	2.806	83.998	92.443	1.00	20.63	C
ATOM 13635	C	LEU D 372	6.315	84.416	94.907	1.00	20.05	C
ATOM 13636	O	LEU D 372	6.963	84.920	93.985	1.00	20.44	O
ATOM 13637	N	LEU D 373	6.629	84.557	96.202	1.00	19.51	N
ATOM 13639	CA	LEU D 373	7.800	85.302	96.648	1.00	19.22	C
ATOM 13641	CB	LEU D 373	7.872	85.398	98.207	1.00	19.24	C
ATOM 13644	CG	LEU D 373	8.021	86.779	98.837	1.00	19.46	C
ATOM 13646	CD1	LEU D 373	8.081	86.667	100.355	1.00	19.71	C
ATOM 13650	CD2	LEU D 373	9.262	87.425	98.331	1.00	20.42	C
ATOM 13654	C	LEU D 373	9.037	84.596	96.091	1.00	18.74	C
ATOM 13655	O	LEU D 373	9.922	85.223	95.513	1.00	18.49	O
ATOM 13656	N	ILE D 374	9.100	83.288	96.312	1.00	18.29	N
ATOM 13658	CA	ILE D 374	10.227	82.472	95.827	1.00	18.22	C
ATOM 13660	CB	ILE D 374	9.999	80.978	96.162	1.00	18.42	C
ATOM 13662	CG1	ILE D 374	10.242	80.730	97.656	1.00	19.63	C
ATOM 13665	CD1	ILE D 374	9.598	79.469	98.203	1.00	20.49	C

173

ATOM 13669	CG2 ILE D 374	10.940	80.076	95.338	1.00	18.65	C
ATOM 13673	C ILE D 374	10.417	82.671	94.315	1.00	17.54	C
ATOM 13674	O ILE D 374	11.536	82.863	93.848	1.00	16.73	O
ATOM 13675	N ALA D 375	9.313	82.672	93.568	1.00	17.01	N
ATOM 13677	CA ALA D 375	9.393	82.871	92.125	1.00	16.61	C
ATOM 13679	CB ALA D 375	8.028	82.672	91.468	1.00	16.59	C
ATOM 13683	C ALA D 375	9.974	84.256	91.803	1.00	16.29	C
ATOM 13684	O ALA D 375	10.880	84.385	90.918	1.00	16.64	O
ATOM 13685	N ILE D 376	9.498	85.281	92.544	1.00	16.20	N
ATOM 13687	CA ILE D 376	10.032	86.638	92.379	1.00	16.40	C
ATOM 13689	CB ILE D 376	9.248	87.627	93.324	1.00	16.11	C
ATOM 13691	CG1 ILE D 376	7.825	87.803	92.781	1.00	16.30	C
ATOM 13694	CD1 ILE D 376	6.843	88.452	93.715	1.00	16.19	C
ATOM 13698	CG2 ILE D 376	9.955	89.010	93.470	1.00	15.48	C
ATOM 13702	C ILE D 376	11.538	86.666	92.678	1.00	17.41	C
ATOM 13703	O ILE D 376	12.324	87.309	91.972	1.00	16.20	O
ATOM 13704	N ASN D 377	11.923	85.948	93.738	1.00	19.09	N
ATOM 13706	CA ASN D 377	13.297	85.930	94.250	1.00	20.66	C
ATOM 13708	CB ASN D 377	13.382	85.211	95.609	1.00	21.50	C
ATOM 13711	CG ASN D 377	14.758	85.331	96.231	1.00	22.32	C
ATOM 13712	OD1 ASN D 377	15.659	84.486	96.019	1.00	24.66	O
ATOM 13713	ND2 ASN D 377	14.940	86.428	96.962	1.00	26.15	N
ATOM 13716	C ASN D 377	14.264	85.247	93.303	1.00	21.20	C
ATOM 13717	O ASN D 377	15.445	85.658	93.169	1.00	22.09	O
ATOM 13718	N ILE D 378	13.731	84.242	92.605	1.00	22.45	N
ATOM 13720	CA ILE D 378	14.450	83.547	91.538	1.00	22.55	C
ATOM 13722	CB ILE D 378	13.658	82.292	91.021	1.00	22.50	C
ATOM 13724	CG1 ILE D 378	13.750	81.164	92.056	1.00	22.30	C
ATOM 13727	CD1 ILE D 378	12.946	79.921	91.696	1.00	22.32	C
ATOM 13731	CG2 ILE D 378	14.210	81.777	89.682	1.00	22.42	C
ATOM 13735	C ILE D 378	14.710	84.538	90.421	1.00	22.67	C
ATOM 13736	O ILE D 378	15.822	84.598	89.899	1.00	23.46	O
ATOM 13737	N PHE D 379	13.693	85.314	90.058	1.00	23.13	N
ATOM 13739	CA PHE D 379	13.713	86.023	88.775	1.00	23.43	C
ATOM 13741	CB PHE D 379	12.330	85.940	88.102	1.00	23.42	C
ATOM 13744	CG PHE D 379	11.977	84.551	87.586	1.00	23.26	C
ATOM 13745	CD1 PHE D 379	10.824	83.888	88.017	1.00	23.13	C
ATOM 13747	CE1 PHE D 379	10.481	82.638	87.514	1.00	23.45	C
ATOM 13749	CZ PHE D 379	11.295	82.029	86.575	1.00	23.02	C
ATOM 13751	CE2 PHE D 379	12.451	82.678	86.131	1.00	23.17	C
ATOM 13753	CD2 PHE D 379	12.785	83.935	86.634	1.00	23.34	C
ATOM 13755	C PHE D 379	14.228	87.464	88.929	1.00	23.64	C
ATOM 13756	O PHE D 379	13.606	88.431	88.457	1.00	24.39	O
ATOM 13757	N SER D 380	15.422	87.579	89.528	1.00	23.56	N
ATOM 13759	CA SER D 380	16.113	88.857	89.670	1.00	23.81	C
ATOM 13761	CB SER D 380	16.723	88.941	91.061	1.00	24.08	C
ATOM 13764	OG SER D 380	15.890	88.308	92.019	1.00	22.99	O
ATOM 13766	C SER D 380	17.217	89.047	88.623	1.00	24.40	C

ATOM 13767	O	SER D 380	18.147	88.229	88.549	1.00	24.34	O
ATOM 13768	N	ALA D 381	17.110	90.135	87.835	1.00	25.02	N
ATOM 13770	CA	ALA D 381	18.046	90.400	86.731	1.00	25.63	C
ATOM 13772	CB	ALA D 381	17.350	91.257	85.629	1.00	25.63	C
ATOM 13776	C	ALA D 381	19.374	91.056	87.178	1.00	26.26	C
ATOM 13777	O	ALA D 381	20.350	91.084	86.409	1.00	26.43	O
ATOM 13778	N	ASP D 382	19.423	91.565	88.413	1.00	27.15	N
ATOM 13780	CA	ASP D 382	20.661	92.158	88.963	1.00	27.84	C
ATOM 13782	CB	ASP D 382	20.310	93.260	89.959	1.00	27.97	C
ATOM 13785	CG	ASP D 382	20.075	92.717	91.336	1.00	29.48	C
ATOM 13786	OD1	ASP D 382	19.208	91.823	91.476	1.00	31.55	O
ATOM 13787	OD2	ASP D 382	20.729	93.085	92.335	1.00	31.34	O
ATOM 13788	C	ASP D 382	21.614	91.140	89.662	1.00	27.85	C
ATOM 13789	O	ASP D 382	22.545	91.529	90.450	1.00	28.22	O
ATOM 13790	N	ARG D 383	21.389	89.846	89.380	1.00	27.58	N
ATOM 13792	CA	ARG D 383	22.362	88.816	89.740	1.00	27.32	C
ATOM 13794	CB	ARG D 383	21.781	87.417	89.530	1.00	27.18	C
ATOM 13797	CG	ARG D 383	20.517	87.169	90.283	1.00	26.76	C
ATOM 13800	CD	ARG D 383	20.626	87.429	91.759	1.00	25.16	C
ATOM 13803	NE	ARG D 383	19.465	86.902	92.452	1.00	24.18	N
ATOM 13805	CZ	ARG D 383	19.320	86.892	93.771	1.00	23.48	C
ATOM 13806	NH1	ARG D 383	20.267	87.391	94.558	1.00	23.07	N
ATOM 13809	NH2	ARG D 383	18.216	86.385	94.301	1.00	22.02	N
ATOM 13812	C	ARG D 383	23.615	88.962	88.867	1.00	27.18	C
ATOM 13813	O	ARG D 383	23.537	89.480	87.750	1.00	27.12	O
ATOM 13814	N	PRO D 384	24.769	88.528	89.384	1.00	27.23	N
ATOM 13815	CA	PRO D 384	25.991	88.459	88.564	1.00	26.91	C
ATOM 13817	CB	PRO D 384	27.082	88.032	89.559	1.00	26.93	C
ATOM 13820	CG	PRO D 384	26.338	87.410	90.730	1.00	27.27	C
ATOM 13823	CD	PRO D 384	24.989	88.072	90.778	1.00	27.08	C
ATOM 13826	C	PRO D 384	25.819	87.395	87.484	1.00	26.70	C
ATOM 13827	O	PRO D 384	25.138	86.387	87.752	1.00	26.88	O
ATOM 13828	N	ASN D 385	26.387	87.641	86.298	1.00	25.93	N
ATOM 13830	CA	ASN D 385	26.444	86.662	85.198	1.00	25.76	C
ATOM 13832	CB	ASN D 385	27.162	85.376	85.639	1.00	25.58	C
ATOM 13835	CG	ASN D 385	28.619	85.650	86.047	1.00	25.58	C
ATOM 13836	OD1	ASN D 385	28.909	85.960	87.233	1.00	25.30	O
ATOM 13837	ND2	ASN D 385	29.548	85.537	85.061	1.00	25.65	N
ATOM 13840	C	ASN D 385	25.125	86.321	84.479	1.00	25.63	C
ATOM 13841	O	ASN D 385	25.104	85.409	83.641	1.00	25.82	O
ATOM 13842	N	VAL D 386	24.043	87.062	84.746	1.00	25.29	N
ATOM 13844	CA	VAL D 386	22.814	86.907	83.937	1.00	25.21	C
ATOM 13846	CB	VAL D 386	21.595	87.548	84.606	1.00	25.07	C
ATOM 13848	CG1	VAL D 386	20.318	87.212	83.843	1.00	24.86	C
ATOM 13852	CG2	VAL D 386	21.480	87.106	86.047	1.00	25.54	C
ATOM 13856	C	VAL D 386	22.988	87.590	82.559	1.00	25.15	C
ATOM 13857	O	VAL D 386	23.303	88.783	82.506	1.00	24.96	O
ATOM 13858	N	GLN D 387	22.750	86.850	81.467	1.00	25.13	N

175

ATOM 13860	CA	GLN D 387	22.983	87.360	80.103	1.00	25.50	C
ATOM 13862	CB	GLN D 387	23.606	86.270	79.227	1.00	25.28	C
ATOM 13865	CG	GLN D 387	24.872	85.665	79.794	1.00	24.89	C
ATOM 13868	CD	GLN D 387	24.663	84.237	80.274	1.00	25.18	C
ATOM 13869	OE1	GLN D 387	24.186	83.364	79.502	1.00	25.79	O
ATOM 13870	NE2	GLN D 387	25.012	83.997	81.559	1.00	26.40	N
ATOM 13873	C	GLN D 387	21.742	87.918	79.384	1.00	25.83	C
ATOM 13874	O	GLN D 387	21.878	88.634	78.386	1.00	25.87	O
ATOM 13875	N	GLU D 388	20.544	87.585	79.875	1.00	26.23	N
ATOM 13877	CA	GLU D 388	19.297	88.098	79.290	1.00	26.42	C
ATOM 13879	CB	GLU D 388	18.482	86.968	78.644	1.00	26.39	C
ATOM 13882	CG	GLU D 388	19.135	86.340	77.418	1.00	26.40	C
ATOM 13885	CD	GLU D 388	18.706	84.896	77.202	1.00	26.62	C
ATOM 13886	OE1	GLU D 388	19.006	84.039	78.077	1.00	27.22	O
ATOM 13887	OE2	GLU D 388	18.066	84.616	76.158	1.00	25.94	O
ATOM 13888	C	GLU D 388	18.472	88.796	80.370	1.00	26.63	C
ATOM 13889	O	GLU D 388	17.370	88.341	80.704	1.00	26.74	O
ATOM 13890	N	PRO D 389	18.999	89.901	80.910	1.00	26.81	N
ATOM 13891	CA	PRO D 389	18.341	90.606	82.023	1.00	26.83	C
ATOM 13893	CB	PRO D 389	19.406	91.624	82.451	1.00	26.81	C
ATOM 13896	CG	PRO D 389	20.173	91.902	81.223	1.00	26.80	C
ATOM 13899	CD	PRO D 389	20.230	90.596	80.485	1.00	26.85	C
ATOM 13902	C	PRO D 389	17.033	91.310	81.594	1.00	26.86	C
ATOM 13903	O	PRO D 389	16.163	91.514	82.464	1.00	27.20	O
ATOM 13904	N	GLY D 390	16.904	91.668	80.294	1.00	27.13	N
ATOM 13906	CA	GLY D 390	15.659	92.210	79.741	1.00	27.02	C
ATOM 13909	C	GLY D 390	14.529	91.193	79.814	1.00	27.23	C
ATOM 13910	O	GLY D 390	13.395	91.551	80.170	1.00	27.97	O
ATOM 13911	N	ARG D 391	14.846	89.916	79.515	1.00	26.99	N
ATOM 13913	CA	ARG D 391	13.886	88.808	79.659	1.00	26.85	C
ATOM 13915	CB	ARG D 391	14.278	87.645	78.736	1.00	26.79	C
ATOM 13918	CG	ARG D 391	13.856	87.854	77.272	1.00	27.15	C
ATOM 13921	CD	ARG D 391	14.356	86.794	76.294	1.00	27.09	C
ATOM 13924	NE	ARG D 391	14.388	85.448	76.885	1.00	27.35	N
ATOM 13926	CZ	ARG D 391	14.920	84.377	76.292	1.00	26.90	C
ATOM 13927	NH1	ARG D 391	15.463	84.468	75.072	1.00	26.64	N
ATOM 13930	NH2	ARG D 391	14.902	83.204	76.920	1.00	26.29	N
ATOM 13933	C	ARG D 391	13.671	88.280	81.101	1.00	26.54	C
ATOM 13934	O	ARG D 391	12.688	87.580	81.346	1.00	26.31	O
ATOM 13935	N	VAL D 392	14.569	88.588	82.040	1.00	26.65	N
ATOM 13937	CA	VAL D 392	14.401	88.137	83.448	1.00	26.73	C
ATOM 13939	CB	VAL D 392	15.734	88.135	84.259	1.00	26.51	C
ATOM 13941	CG1	VAL D 392	15.490	88.062	85.798	1.00	27.06	C
ATOM 13945	CG2	VAL D 392	16.599	86.970	83.846	1.00	26.65	C
ATOM 13949	C	VAL D 392	13.350	89.002	84.141	1.00	26.85	C
ATOM 13950	O	VAL D 392	12.525	88.484	84.886	1.00	27.26	O
ATOM 13951	N	GLU D 393	13.375	90.311	83.861	1.00	27.22	N
ATOM 13953	CA	GLU D 393	12.383	91.267	84.364	1.00	27.21	C

176

ATOM 13955	CB	GLU D 393	12.675	92.689	83.754	1.00	27.50	C
ATOM 13958	CG	GLU D 393	11.466	93.539	83.301	1.00	27.64	C
ATOM 13961	CD	GLU D 393	11.775	94.494	82.130	1.00	28.08	C
ATOM 13962	OE1	GLU D 393	11.975	94.032	80.968	1.00	28.18	O
ATOM 13963	OE2	GLU D 393	11.790	95.731	82.359	1.00	28.07	O
ATOM 13964	C	GLU D 393	10.969	90.776	83.987	1.00	27.25	C
ATOM 13965	O	GLU D 393	10.010	90.823	84.862	1.00	27.36	O
ATOM 13966	N	ALA D 394	10.859	90.303	82.706	1.00	26.84	N
ATOM 13968	CA	ALA D 394	9.551	89.967	82.113	1.00	26.90	C
ATOM 13970	CB	ALA D 394	9.694	89.785	80.556	1.00	26.65	C
ATOM 13974	C	ALA D 394	8.870	88.727	82.746	1.00	26.77	C
ATOM 13975	O	ALA D 394	7.534	88.637	82.840	1.00	27.28	O
ATOM 13976	N	LEU D 395	9.774	87.767	83.154	1.00	26.60	N
ATOM 13978	CA	LEU D 395	9.333	86.545	83.824	1.00	26.66	C
ATOM 13980	CB	LEU D 395	10.452	85.505	83.806	1.00	26.77	C
ATOM 13983	CG	LEU D 395	10.912	85.050	82.424	1.00	26.79	C
ATOM 13985	CD1	LEU D 395	12.316	84.477	82.513	1.00	27.22	C
ATOM 13989	CD2	LEU D 395	9.942	84.033	81.850	1.00	27.09	C
ATOM 13993	C	LEU D 395	8.912	86.845	85.283	1.00	26.49	C
ATOM 13994	O	LEU D 395	7.991	86.214	85.839	1.00	26.38	O
ATOM 13995	N	GLN D 396	9.580	87.829	85.881	1.00	26.22	N
ATOM 13997	CA	GLN D 396	9.301	88.271	87.252	1.00	26.30	C
ATOM 13999	CB	GLN D 396	10.475	89.114	87.767	1.00	25.98	C
ATOM 14002	CG	GLN D 396	10.339	89.635	89.210	1.00	25.82	C
ATOM 14005	CD	GLN D 396	11.449	90.611	89.590	1.00	24.18	C
ATOM 14006	OE1	GLN D 396	12.298	90.291	90.437	1.00	21.35	O
ATOM 14007	NE2	GLN D 396	11.449	91.797	88.947	1.00	21.28	N
ATOM 14010	C	GLN D 396	8.003	89.088	87.354	1.00	26.61	C
ATOM 14011	O	GLN D 396	7.320	89.018	88.380	1.00	26.42	O
ATOM 14012	N	GLN D 397	7.670	89.843	86.289	1.00	26.64	N
ATOM 14014	CA	GLN D 397	6.553	90.798	86.317	1.00	26.71	C
ATOM 14016	CB	GLN D 397	6.525	91.683	85.053	1.00	26.94	C
ATOM 14019	CG	GLN D 397	5.948	93.094	85.271	1.00	27.02	C
ATOM 14022	CD	GLN D 397	6.983	94.187	85.067	1.00	26.83	C
ATOM 14023	OE1	GLN D 397	7.135	94.694	83.958	1.00	26.15	O
ATOM 14024	NE2	GLN D 397	7.696	94.551	86.137	1.00	26.63	N
ATOM 14027	C	GLN D 397	5.185	90.133	86.519	1.00	26.73	C
ATOM 14028	O	GLN D 397	4.417	90.588	87.358	1.00	26.66	O
ATOM 14029	N	PRO D 398	4.856	89.091	85.750	1.00	26.78	N
ATOM 14030	CA	PRO D 398	3.631	88.315	86.008	1.00	26.61	C
ATOM 14032	CB	PRO D 398	3.774	87.115	85.071	1.00	26.74	C
ATOM 14035	CG	PRO D 398	4.591	87.622	83.934	1.00	26.78	C
ATOM 14038	CD	PRO D 398	5.573	88.578	84.563	1.00	26.84	C
ATOM 14041	C	PRO D 398	3.504	87.830	87.448	1.00	26.29	C
ATOM 14042	O	PRO D 398	2.415	87.949	88.004	1.00	26.09	O
ATOM 14043	N	TYR D 399	4.584	87.302	88.029	1.00	26.04	N
ATOM 14045	CA	TYR D 399	4.533	86.789	89.398	1.00	25.83	C
ATOM 14047	CB	TYR D 399	5.810	86.029	89.765	1.00	25.70	C

177

ATOM 14050	CG TYR D 399	5.965	84.786	88.928	1.00	26.07	C
ATOM 14051	CD1 TYR D 399	6.900	84.732	87.903	1.00	26.66	C
ATOM 14053	CE1 TYR D 399	7.039	83.601	87.104	1.00	26.67	C
ATOM 14055	CZ TYR D 399	6.226	82.506	87.322	1.00	26.59	C
ATOM 14056	OH TYR D 399	6.391	81.392	86.526	1.00	25.95	O
ATOM 14058	CE2 TYR D 399	5.274	82.532	88.338	1.00	26.51	C
ATOM 14060	CD2 TYR D 399	5.144	83.677	89.130	1.00	26.33	C
ATOM 14062	C TYR D 399	4.286	87.911	90.365	1.00	25.44	C
ATOM 14063	O TYR D 399	3.615	87.710	91.377	1.00	26.13	O
ATOM 14064	N VAL D 400	4.824	89.089	90.050	1.00	25.12	N
ATOM 14066	CA VAL D 400	4.635	90.269	90.888	1.00	25.22	C
ATOM 14068	CB VAL D 400	5.652	91.407	90.531	1.00	25.28	C
ATOM 14070	CG1 VAL D 400	5.359	92.672	91.342	1.00	25.47	C
ATOM 14074	CG2 VAL D 400	7.101	90.957	90.799	1.00	25.33	C
ATOM 14078	C VAL D 400	3.170	90.751	90.794	1.00	24.85	C
ATOM 14079	O VAL D 400	2.553	91.087	91.808	1.00	24.57	O
ATOM 14080	N GLU D 401	2.618	90.751	89.577	1.00	24.80	N
ATOM 14082	CA GLU D 401	1.219	91.153	89.324	1.00	24.54	C
ATOM 14084	CB GLU D 401	0.950	91.243	87.821	1.00	24.93	C
ATOM 14087	CG GLU D 401	1.589	92.435	87.120	1.00	25.22	C
ATOM 14090	CD GLU D 401	1.648	92.251	85.616	1.00	26.82	C
ATOM 14091	OE1 GLU D 401	0.925	91.366	85.092	1.00	28.67	O
ATOM 14092	OE2 GLU D 401	2.411	92.988	84.949	1.00	27.86	O
ATOM 14093	C GLU D 401	0.176	90.182	89.918	1.00	24.23	C
ATOM 14094	O GLU D 401	-1.003	90.581	90.290	1.00	25.03	O
ATOM 14095	N ALA D 402	0.621	88.910	90.002	1.00	23.46	N
ATOM 14097	CA ALA D 402	-0.117	87.820	90.670	1.00	22.74	C
ATOM 14099	CB ALA D 402	0.489	86.490	90.270	1.00	22.65	C
ATOM 14103	C ALA D 402	-0.109	87.951	92.216	1.00	22.20	C
ATOM 14104	O ALA D 402	-1.144	87.757	92.860	1.00	21.72	O
ATOM 14105	N LEU D 403	1.047	88.270	92.804	1.00	21.80	N
ATOM 14107	CA LEU D 403	1.153	88.378	94.275	1.00	21.69	C
ATOM 14109	CB LEU D 403	2.614	88.365	94.764	1.00	21.32	C
ATOM 14112	CG LEU D 403	2.877	88.644	96.263	1.00	20.59	C
ATOM 14114	CD1 LEU D 403	2.174	87.643	97.193	1.00	19.48	C
ATOM 14118	CD2 LEU D 403	4.374	88.685	96.553	1.00	19.77	C
ATOM 14122	C LEU D 403	0.460	89.643	94.768	1.00	21.92	C
ATOM 14123	O LEU D 403	-0.014	89.687	95.903	1.00	21.96	O
ATOM 14124	N LEU D 404	0.370	90.655	93.897	1.00	22.17	N
ATOM 14126	CA LEU D 404	-0.155	91.953	94.316	1.00	22.36	C
ATOM 14128	CB LEU D 404	0.215	93.045	93.303	1.00	21.86	C
ATOM 14131	CG LEU D 404	-0.498	94.394	93.455	1.00	21.89	C
ATOM 14133	CD1 LEU D 404	-0.338	95.016	94.838	1.00	21.21	C
ATOM 14137	CD2 LEU D 404	-0.009	95.367	92.391	1.00	22.61	C
ATOM 14141	C LEU D 404	-1.665	91.875	94.510	1.00	22.77	C
ATOM 14142	O LEU D 404	-2.213	92.426	95.471	1.00	22.95	O
ATOM 14143	N SER D 405	-2.328	91.181	93.587	1.00	23.38	N
ATOM 14145	CA SER D 405	-3.775	91.032	93.623	1.00	23.72	C

178

ATOM 14147	CB	SER D 405	-4.296	90.563	92.261	1.00	23.64	C
ATOM 14150	OG	SER D 405	-4.049	91.544	91.265	1.00	23.54	O
ATOM 14152	C	SER D 405	-4.174	90.041	94.704	1.00	24.14	C
ATOM 14153	O	SER D 405	-5.198	90.211	95.360	1.00	24.22	O
ATOM 14154	N	TYR D 406	-3.367	89.005	94.878	1.00	24.67	N
ATOM 14156	CA	TYR D 406	-3.599	88.032	95.935	1.00	25.59	C
ATOM 14158	CB	TYR D 406	-2.493	86.973	95.951	1.00	25.65	C
ATOM 14161	CG	TYR D 406	-2.802	85.800	96.852	1.00	26.18	C
ATOM 14162	CD1	TYR D 406	-3.641	84.777	96.425	1.00	27.08	C
ATOM 14164	CE1	TYR D 406	-3.934	83.698	97.246	1.00	27.03	C
ATOM 14166	CZ	TYR D 406	-3.392	83.637	98.509	1.00	26.80	C
ATOM 14167	OH	TYR D 406	-3.685	82.570	99.320	1.00	26.96	O
ATOM 14169	CE2	TYR D 406	-2.565	84.645	98.962	1.00	27.03	C
ATOM 14171	CD2	TYR D 406	-2.274	85.718	98.132	1.00	26.61	C
ATOM 14173	C	TYR D 406	-3.682	88.684	97.324	1.00	26.22	C
ATOM 14174	O	TYR D 406	-4.589	88.364	98.090	1.00	26.36	O
ATOM 14175	N	THR D 407	-2.735	89.575	97.648	1.00	26.85	N
ATOM 14177	CA	THR D 407	-2.709	90.253	98.962	1.00	27.09	C
ATOM 14179	CB	THR D 407	-1.346	90.951	99.248	1.00	26.75	C
ATOM 14181	OG1	THR D 407	-0.995	91.848	98.186	1.00	25.68	O
ATOM 14183	CG2	THR D 407	-0.209	89.952	99.274	1.00	27.05	C
ATOM 14187	C	THR D 407	-3.850	91.269	99.101	1.00	27.77	C
ATOM 14188	O	THR D 407	-4.240	91.621	100.219	1.00	27.85	O
ATOM 14189	N	ARG D 408	-4.371	91.741	97.970	1.00	28.43	N
ATOM 14191	CA	ARG D 408	-5.540	92.624	97.963	1.00	29.05	C
ATOM 14193	CB	ARG D 408	-5.687	93.316	96.611	1.00	29.01	C
ATOM 14196	CG	ARG D 408	-4.740	94.472	96.397	1.00	29.00	C
ATOM 14199	CD	ARG D 408	-4.713	94.977	94.949	1.00	29.14	C
ATOM 14202	NE	ARG D 408	-5.018	96.400	94.821	1.00	28.56	N
ATOM 14204	CZ	ARG D 408	-4.275	97.384	95.322	1.00	29.15	C
ATOM 14205	NH1	ARG D 408	-3.165	97.124	96.013	1.00	30.30	N
ATOM 14208	NH2	ARG D 408	-4.648	98.643	95.143	1.00	29.46	N
ATOM 14211	C	ARG D 408	-6.839	91.881	98.290	1.00	29.68	C
ATOM 14212	O	ARG D 408	-7.776	92.485	98.809	1.00	29.93	O
ATOM 14213	N	ILE D 409	-6.898	90.586	97.972	1.00	30.33	N
ATOM 14215	CA	ILE D 409	-8.078	89.760	98.244	1.00	30.71	C
ATOM 14217	CB	ILE D 409	-8.316	88.743	97.089	1.00	30.70	C
ATOM 14219	CG1	ILE D 409	-8.597	89.474	95.767	1.00	29.85	C
ATOM 14222	CD1	ILE D 409	-8.176	88.693	94.548	1.00	28.92	C
ATOM 14226	CG2	ILE D 409	-9.487	87.800	97.408	1.00	30.58	C
ATOM 14230	C	ILE D 409	-7.967	89.042	99.597	1.00	31.33	C
ATOM 14231	O	ILE D 409	-8.972	88.799	100.253	1.00	31.40	O
ATOM 14232	N	LYS D 410	-6.755	88.705	100.023	1.00	32.21	N
ATOM 14234	CA	LYS D 410	-6.568	88.131	101.354	1.00	32.89	C
ATOM 14236	CB	LYS D 410	-5.117	87.679	101.573	1.00	32.85	C
ATOM 14239	CG	LYS D 410	-4.868	87.026	102.929	1.00	33.02	C
ATOM 14242	CD	LYS D 410	-3.689	86.066	102.900	1.00	32.61	C
ATOM 14245	CE	LYS D 410	-3.175	85.775	104.305	1.00	33.06	C

179

ATOM 14248	NZ	LYS D 410	-1.844	85.100	104.288	1.00	32.45	N
ATOM 14252	C	LYS D 410	-7.006	89.188	102.376	1.00	33.50	C
ATOM 14253	O	LYS D 410	-8.127	89.120	102.904	1.00	33.65	O
ATOM 14254	N	ARG D 411	-6.151	90.189	102.593	1.00	33.98	N
ATOM 14256	CA	ARG D 411	-6.446	91.301	103.497	1.00	34.36	C
ATOM 14258	CB	ARG D 411	-5.413	91.354	104.636	1.00	34.63	C
ATOM 14261	CG	ARG D 411	-4.864	89.996	105.025	1.00	35.78	C
ATOM 14264	CD	ARG D 411	-4.140	89.958	106.357	1.00	37.58	C
ATOM 14267	NE	ARG D 411	-4.780	89.044	107.309	1.00	38.57	N
ATOM 14269	CZ	ARG D 411	-4.145	88.358	108.266	1.00	39.14	C
ATOM 14270	NH1	ARG D 411	-2.819	88.448	108.430	1.00	39.02	N
ATOM 14273	NH2	ARG D 411	-4.851	87.567	109.071	1.00	38.86	N
ATOM 14276	C	ARG D 411	-6.476	92.631	102.717	1.00	34.11	C
ATOM 14277	O	ARG D 411	-5.430	93.253	102.501	1.00	34.15	O
ATOM 14278	N	PRO D 412	-7.665	93.073	102.297	1.00	33.80	N
ATOM 14279	CA	PRO D 412	-7.804	94.381	101.635	1.00	33.58	C
ATOM 14281	CB	PRO D 412	-9.184	94.309	100.961	1.00	33.54	C
ATOM 14284	CG	PRO D 412	-9.790	92.996	101.355	1.00	33.66	C
ATOM 14287	CD	PRO D 412	-8.960	92.385	102.430	1.00	33.77	C
ATOM 14290	C	PRO D 412	-7.760	95.552	102.619	1.00	33.32	C
ATOM 14291	O	PRO D 412	-7.917	96.697	102.195	1.00	33.47	O
ATOM 14292	N	GLN D 413	-7.555	95.258	103.904	1.00	33.03	N
ATOM 14294	CA	GLN D 413	-7.507	96.264	104.963	1.00	32.59	C
ATOM 14296	CB	GLN D 413	-8.324	95.793	106.182	1.00	32.65	C
ATOM 14299	CG	GLN D 413	-9.648	95.069	105.852	1.00	32.48	C
ATOM 14302	CD	GLN D 413	-10.850	96.000	105.790	1.00	32.38	C
ATOM 14303	OE1	GLN D 413	-11.115	96.622	104.758	1.00	32.10	O
ATOM 14304	NE2	GLN D 413	-11.587	96.084	106.891	1.00	32.01	N
ATOM 14307	C	GLN D 413	-6.053	96.566	105.376	1.00	32.12	C
ATOM 14308	O	GLN D 413	-5.771	97.638	105.930	1.00	32.43	O
ATOM 14309	N	ASP D 414	-5.143	95.627	105.111	1.00	30.97	N
ATOM 14311	CA	ASP D 414	-3.724	95.823	105.377	1.00	30.31	C
ATOM 14313	CB	ASP D 414	-3.159	94.621	106.159	1.00	30.45	C
ATOM 14316	CG	ASP D 414	-1.724	94.844	106.639	1.00	30.71	C
ATOM 14317	OD1	ASP D 414	-1.178	95.959	106.481	1.00	30.59	O
ATOM 14318	OD2	ASP D 414	-1.053	93.950	107.193	1.00	33.64	O
ATOM 14319	C	ASP D 414	-2.948	96.022	104.070	1.00	29.51	C
ATOM 14320	O	ASP D 414	-2.345	95.079	103.543	1.00	29.27	O
ATOM 14321	N	GLN D 415	-2.938	97.256	103.568	1.00	28.56	N
ATOM 14323	CA	GLN D 415	-2.243	97.566	102.312	1.00	27.98	C
ATOM 14325	CB	GLN D 415	-2.849	98.802	101.644	1.00	28.17	C
ATOM 14328	CG	GLN D 415	-2.454	98.939	100.165	1.00	29.01	C
ATOM 14331	CD	GLN D 415	-3.344	99.883	99.379	1.00	29.77	C
ATOM 14332	OE1	GLN D 415	-3.842	100.880	99.915	1.00	30.21	O
ATOM 14333	NE2	GLN D 415	-3.532	99.581	98.096	1.00	30.34	N
ATOM 14336	C	GLN D 415	-0.725	97.757	102.438	1.00	27.08	C
ATOM 14337	O	GLN D 415	-0.072	98.088	101.450	1.00	27.03	O
ATOM 14338	N	LEU D 416	-0.164	97.568	103.633	1.00	26.01	N

180

ATOM 14340	CA	LEU D 416	1.287	97.634	103.817	1.00	25.35	C
ATOM 14342	CB	LEU D 416	1.632	98.378	105.098	1.00	25.26	C
ATOM 14345	CG	LEU D 416	1.305	99.868	105.023	1.00	25.38	C
ATOM 14347	CD1	LEU D 416	1.586	100.518	106.361	1.00	26.29	C
ATOM 14351	CD2	LEU D 416	2.090	100.548	103.906	1.00	24.59	C
ATOM 14355	C	LEU D 416	1.916	96.251	103.846	1.00	24.93	C
ATOM 14356	O	LEU D 416	3.141	96.110	103.919	1.00	24.37	O
ATOM 14357	N	ARG D 417	1.073	95.231	103.761	1.00	24.23	N
ATOM 14359	CA	ARG D 417	1.545	93.865	103.770	1.00	23.87	C
ATOM 14361	CB	ARG D 417	0.363	92.914	103.937	1.00	24.30	C
ATOM 14364	CG	ARG D 417	0.738	91.459	103.953	1.00	24.85	C
ATOM 14367	CD	ARG D 417	-0.239	90.589	103.143	1.00	26.32	C
ATOM 14370	NE	ARG D 417	0.067	89.191	103.357	1.00	25.65	N
ATOM 14372	CZ	ARG D 417	-0.120	88.563	104.500	1.00	25.52	C
ATOM 14373	NH1	ARG D 417	-0.653	89.179	105.543	1.00	24.86	N
ATOM 14376	NH2	ARG D 417	0.224	87.292	104.601	1.00	27.39	N
ATOM 14379	C	ARG D 417	2.322	93.557	102.490	1.00	22.58	C
ATOM 14380	O	ARG D 417	3.385	92.950	102.555	1.00	21.77	O
ATOM 14381	N	PHE D 418	1.807	93.987	101.341	1.00	21.50	N
ATOM 14383	CA	PHE D 418	2.508	93.725	100.085	1.00	21.07	C
ATOM 14385	CB	PHE D 418	1.691	94.131	98.860	1.00	20.69	C
ATOM 14388	CG	PHE D 418	2.377	93.826	97.560	1.00	21.65	C
ATOM 14389	CD1	PHE D 418	2.880	92.551	97.306	1.00	22.82	C
ATOM 14391	CE1	PHE D 418	3.518	92.269	96.100	1.00	22.73	C
ATOM 14393	CZ	PHE D 418	3.665	93.254	95.149	1.00	21.48	C
ATOM 14395	CE2	PHE D 418	3.186	94.526	95.397	1.00	20.67	C
ATOM 14397	CD2	PHE D 418	2.551	94.810	96.596	1.00	21.06	C
ATOM 14399	C	PHE D 418	3.922	94.336	100.030	1.00	20.35	C
ATOM 14400	O	PHE D 418	4.873	93.627	99.712	1.00	20.85	O
ATOM 14401	N	PRO D 419	4.081	95.623	100.325	1.00	19.44	N
ATOM 14402	CA	PRO D 419	5.415	96.222	100.322	1.00	19.00	C
ATOM 14404	CB	PRO D 419	5.151	97.688	100.695	1.00	19.07	C
ATOM 14407	CG	PRO D 419	3.708	97.920	100.399	1.00	19.03	C
ATOM 14410	CD	PRO D 419	3.045	96.620	100.659	1.00	19.88	C
ATOM 14413	C	PRO D 419	6.323	95.564	101.338	1.00	18.70	C
ATOM 14414	O	PRO D 419	7.491	95.422	101.075	1.00	18.25	O
ATOM 14415	N	ARG D 420	5.781	95.159	102.475	1.00	18.74	N
ATOM 14417	CA	ARG D 420	6.570	94.525	103.509	1.00	19.10	C
ATOM 14419	CB	ARG D 420	5.727	94.308	104.772	1.00	19.42	C
ATOM 14422	CG	ARG D 420	5.610	95.531	105.690	1.00	21.39	C
ATOM 14425	CD	ARG D 420	5.506	95.171	107.174	1.00	24.71	C
ATOM 14428	NE	ARG D 420	5.136	96.302	108.027	1.00	25.99	N
ATOM 14430	CZ	ARG D 420	3.894	96.654	108.327	1.00	27.35	C
ATOM 14431	NH1	ARG D 420	2.846	95.988	107.837	1.00	28.76	N
ATOM 14434	NH2	ARG D 420	3.692	97.691	109.124	1.00	28.38	N
ATOM 14437	C	ARG D 420	7.154	93.192	103.012	1.00	18.86	C
ATOM 14438	O	ARG D 420	8.284	92.845	103.339	1.00	18.33	O
ATOM 14439	N	MET D 421	6.382	92.461	102.216	1.00	18.99	N

ATOM 14441	CA	MET D 421	6.832	91.199	101.635	1.00	19.13	C
ATOM 14443	CB	MET D 421	5.700	90.531	100.862	1.00	19.64	C
ATOM 14446	CG	MET D 421	4.783	89.695	101.721	1.00	20.31	C
ATOM 14449	SD	MET D 421	3.336	89.252	100.764	1.00	21.27	S
ATOM 14450	CE	MET D 421	3.750	87.736	100.250	1.00	21.18	C
ATOM 14454	C	MET D 421	7.973	91.422	100.674	1.00	18.77	C
ATOM 14455	O	MET D 421	8.883	90.618	100.605	1.00	18.22	O
ATOM 14456	N	LEU D 422	7.900	92.503	99.914	1.00	18.49	N
ATOM 14458	CA	LEU D 422	8.961	92.834	98.985	1.00	19.09	C
ATOM 14460	CB	LEU D 422	8.500	93.861	97.943	1.00	19.10	C
ATOM 14463	CG	LEU D 422	7.224	93.541	97.168	1.00	19.36	C
ATOM 14465	CD1	LEU D 422	6.874	94.710	96.311	1.00	20.66	C
ATOM 14469	CD2	LEU D 422	7.385	92.288	96.330	1.00	19.92	C
ATOM 14473	C	LEU D 422	10.165	93.360	99.745	1.00	19.29	C
ATOM 14474	O	LEU D 422	11.298	93.160	99.322	1.00	19.59	O
ATOM 14475	N	MET D 423	9.930	94.020	100.874	1.00	19.59	N
ATOM 14477	CA	MET D 423	11.037	94.491	101.714	1.00	20.09	C
ATOM 14479	CB	MET D 423	10.549	95.321	102.908	1.00	20.43	C
ATOM 14482	CG	MET D 423	9.777	96.590	102.599	1.00	23.17	C
ATOM 14485	SD	MET D 423	10.620	97.852	101.626	1.00	29.21	S
ATOM 14486	CE	MET D 423	12.328	97.743	102.213	1.00	28.12	C
ATOM 14490	C	MET D 423	11.861	93.310	102.246	1.00	19.20	C
ATOM 14491	O	MET D 423	13.019	93.459	102.573	1.00	18.48	O
ATOM 14492	N	LYS D 424	11.260	92.137	102.313	1.00	19.52	N
ATOM 14494	CA	LYS D 424	11.970	90.937	102.758	1.00	19.82	C
ATOM 14496	CB	LYS D 424	10.984	89.863	103.164	1.00	20.40	C
ATOM 14499	CG	LYS D 424	10.073	90.273	104.345	1.00	21.46	C
ATOM 14502	CD	LYS D 424	10.796	90.295	105.693	1.00	24.24	C
ATOM 14505	CE	LYS D 424	10.134	91.289	106.695	1.00	26.61	C
ATOM 14508	NZ	LYS D 424	9.692	92.624	106.067	1.00	28.24	N
ATOM 14512	C	LYS D 424	12.949	90.380	101.743	1.00	19.85	C
ATOM 14513	O	LYS D 424	13.913	89.731	102.136	1.00	20.18	O
ATOM 14514	N	LEU D 425	12.718	90.642	100.451	1.00	19.63	N
ATOM 14516	CA	LEU D 425	13.709	90.377	99.398	1.00	19.13	C
ATOM 14518	CB	LEU D 425	13.155	90.746	98.007	1.00	18.97	C
ATOM 14521	CG	LEU D 425	11.926	90.004	97.484	1.00	18.90	C
ATOM 14523	CD1	LEU D 425	11.445	90.629	96.155	1.00	17.97	C
ATOM 14527	CD2	LEU D 425	12.229	88.521	97.335	1.00	18.45	C
ATOM 14531	C	LEU D 425	14.997	91.170	99.605	1.00	18.76	C
ATOM 14532	O	LEU D 425	16.080	90.714	99.259	1.00	18.22	O
ATOM 14533	N	VAL D 426	14.852	92.383	100.117	1.00	18.84	N
ATOM 14535	CA	VAL D 426	15.991	93.231	100.456	1.00	19.33	C
ATOM 14537	CB	VAL D 426	15.564	94.666	100.888	1.00	19.58	C
ATOM 14539	CG1	VAL D 426	16.794	95.574	100.987	1.00	19.60	C
ATOM 14543	CG2	VAL D 426	14.524	95.278	99.903	1.00	19.48	C
ATOM 14547	C	VAL D 426	16.766	92.612	101.609	1.00	19.51	C
ATOM 14548	O	VAL D 426	17.999	92.603	101.612	1.00	19.27	O
ATOM 14549	N	SER D 427	16.022	92.094	102.584	1.00	19.50	N

182

ATOM 14551	CA	SER D 427	16.618	91.452	103.728	1.00	19.64	C
ATOM 14553	CB	SER D 427	15.560	91.076	104.771	1.00	19.70	C
ATOM 14556	OG	SER D 427	14.918	92.226	105.261	1.00	18.68	O
ATOM 14558	C	SER D 427	17.359	90.217	103.268	1.00	19.62	C
ATOM 14559	O	SER D 427	18.460	89.960	103.731	1.00	19.71	O
ATOM 14560	N	LEU D 428	16.768	89.461	102.350	1.00	19.60	N
ATOM 14562	CA	LEU D 428	17.430	88.260	101.823	1.00	19.70	C
ATOM 14564	CB	LEU D 428	16.542	87.539	100.827	1.00	19.32	C
ATOM 14567	CG	LEU D 428	15.371	86.853	101.519	1.00	18.01	C
ATOM 14569	CD1	LEU D 428	14.341	86.450	100.519	1.00	19.67	C
ATOM 14573	CD2	LEU D 428	15.845	85.662	102.306	1.00	17.49	C
ATOM 14577	C	LEU D 428	18.798	88.546	101.204	1.00	20.08	C
ATOM 14578	O	LEU D 428	19.719	87.768	101.389	1.00	20.31	O
ATOM 14579	N	ARG D 429	18.952	89.682	100.535	1.00	20.87	N
ATOM 14581	CA	ARG D 429	20.265	90.082	100.031	1.00	21.39	C
ATOM 14583	CB	ARG D 429	20.182	91.347	99.198	1.00	21.37	C
ATOM 14586	CG	ARG D 429	19.280	91.251	98.003	1.00	20.84	C
ATOM 14589	CD	ARG D 429	19.770	90.313	96.958	1.00	20.94	C
ATOM 14592	NE	ARG D 429	18.678	89.931	96.073	1.00	21.17	N
ATOM 14594	CZ	ARG D 429	18.610	90.228	94.782	1.00	18.65	C
ATOM 14595	NH1	ARG D 429	19.569	90.911	94.179	1.00	18.15	N
ATOM 14598	NH2	ARG D 429	17.557	89.829	94.090	1.00	18.92	N
ATOM 14601	C	ARG D 429	21.275	90.298	101.143	1.00	22.40	C
ATOM 14602	O	ARG D 429	22.387	89.846	101.024	1.00	23.69	O
ATOM 14603	N	THR D 430	20.904	90.979	102.221	1.00	23.30	N
ATOM 14605	CA	THR D 430	21.838	91.236	103.329	1.00	23.82	C
ATOM 14607	CB	THR D 430	21.180	92.171	104.395	1.00	23.63	C
ATOM 14609	OG1	THR D 430	21.223	93.537	103.948	1.00	24.57	O
ATOM 14611	CG2	THR D 430	21.980	92.197	105.710	1.00	23.10	C
ATOM 14615	C	THR D 430	22.283	89.928	103.984	1.00	24.24	C
ATOM 14616	O	THR D 430	23.434	89.762	104.364	1.00	24.96	O
ATOM 14617	N	LEU D 431	21.341	89.014	104.117	1.00	24.61	N
ATOM 14619	CA	LEU D 431	21.561	87.716	104.729	1.00	24.97	C
ATOM 14621	CB	LEU D 431	20.213	87.008	104.856	1.00	24.72	C
ATOM 14624	CG	LEU D 431	19.473	86.920	106.203	1.00	25.30	C
ATOM 14626	CD1	LEU D 431	20.058	87.755	107.324	1.00	25.42	C
ATOM 14630	CD2	LEU D 431	17.988	87.212	106.047	1.00	24.32	C
ATOM 14634	C	LEU D 431	22.546	86.846	103.919	1.00	25.70	C
ATOM 14635	O	LEU D 431	23.233	86.014	104.481	1.00	25.14	O
ATOM 14636	N	SER D 432	22.603	87.060	102.602	1.00	26.94	N
ATOM 14638	CA	SER D 432	23.599	86.436	101.735	1.00	27.75	C
ATOM 14640	CB	SER D 432	23.347	86.779	100.264	1.00	27.96	C
ATOM 14643	OG	SER D 432	22.562	85.771	99.649	1.00	29.47	O
ATOM 14645	C	SER D 432	25.020	86.838	102.101	1.00	28.16	C
ATOM 14646	O	SER D 432	25.918	85.998	102.101	1.00	28.43	O
ATOM 14647	N	SER D 433	25.241	88.112	102.403	1.00	28.31	N
ATOM 14649	CA	SER D 433	26.575	88.527	102.835	1.00	28.49	C
ATOM 14651	CB	SER D 433	26.699	90.042	102.796	1.00	28.45	C

ATOM 14654	OG SER D 433	26.638	90.478	101.451	1.00	28.91	O
ATOM 14656	C SER D 433	26.950	87.959	104.216	1.00	28.47	C
ATOM 14657	O SER D 433	28.082	87.536	104.426	1.00	28.09	O
ATOM 14658	N VAL D 434	25.998	87.926	105.145	1.00	28.89	N
ATOM 14660	CA VAL D 434	26.218	87.262	106.442	1.00	29.21	C
ATOM 14662	CB VAL D 434	25.005	87.435	107.382	1.00	29.01	C
ATOM 14664	CG1 VAL D 434	25.059	86.481	108.564	1.00	29.49	C
ATOM 14668	CG2 VAL D 434	24.929	88.865	107.878	1.00	29.74	C
ATOM 14672	C VAL D 434	26.569	85.767	106.236	1.00	29.32	C
ATOM 14673	O VAL D 434	27.430	85.215	106.942	1.00	29.25	O
ATOM 14674	N HIS D 435	25.934	85.127	105.257	1.00	29.25	N
ATOM 14676	CA HIS D 435	26.223	83.725	104.984	1.00	29.62	C
ATOM 14678	CB HIS D 435	25.227	83.128	103.997	1.00	29.47	C
ATOM 14681	CG HIS D 435	25.667	81.818	103.432	1.00	30.09	C
ATOM 14682	ND1 HIS D 435	26.210	81.699	102.171	1.00	31.27	N
ATOM 14684	CE1 HIS D 435	26.515	80.434	101.946	1.00	32.03	C
ATOM 14686	NE2 HIS D 435	26.202	79.732	103.020	1.00	31.67	N
ATOM 14688	CD2 HIS D 435	25.669	80.574	103.963	1.00	30.51	C
ATOM 14690	C HIS D 435	27.654	83.563	104.460	1.00	29.81	C
ATOM 14691	O HIS D 435	28.359	82.645	104.865	1.00	29.40	O
ATOM 14692	N SER D 436	28.080	84.478	103.593	1.00	30.21	N
ATOM 14694	CA SER D 436	29.422	84.433	103.014	1.00	30.90	C
ATOM 14696	CB SER D 436	29.543	85.433	101.874	1.00	30.73	C
ATOM 14699	OG SER D 436	28.677	85.053	100.821	1.00	31.21	O
ATOM 14701	C SER D 436	30.525	84.678	104.039	1.00	31.31	C
ATOM 14702	O SER D 436	31.659	84.236	103.846	1.00	31.66	O
ATOM 14703	N GLU D 437	30.190	85.384	105.116	1.00	31.66	N
ATOM 14705	CA GLU D 437	31.111	85.590	106.232	1.00	31.86	C
ATOM 14707	CB GLU D 437	30.667	86.779	107.096	1.00	32.13	C
ATOM 14710	CG GLU D 437	30.690	88.122	106.378	1.00	33.24	C
ATOM 14713	CD GLU D 437	30.107	89.251	107.222	1.00	34.45	C
ATOM 14714	OE1 GLU D 437	30.744	90.327	107.285	1.00	35.95	O
ATOM 14715	OE2 GLU D 437	29.024	89.066	107.825	1.00	34.25	O
ATOM 14716	C GLU D 437	31.203	84.333	107.101	1.00	31.52	C
ATOM 14717	O GLU D 437	32.249	84.077	107.703	1.00	31.30	O
ATOM 14718	N GLN D 438	30.109	83.569	107.183	1.00	31.14	N
ATOM 14720	CA GLN D 438	30.120	82.299	107.909	1.00	30.94	C
ATOM 14722	CB GLN D 438	28.695	81.757	108.135	1.00	31.03	C
ATOM 14725	CG GLN D 438	28.607	80.274	108.614	1.00	31.22	C
ATOM 14728	CD GLN D 438	29.016	80.078	110.089	1.00	31.76	C
ATOM 14729	OE1 GLN D 438	28.244	80.392	111.002	1.00	31.04	O
ATOM 14730	NE2 GLN D 438	30.225	79.560	110.312	1.00	29.92	N
ATOM 14733	C GLN D 438	30.991	81.273	107.173	1.00	30.81	C
ATOM 14734	O GLN D 438	31.746	80.546	107.819	1.00	30.62	O
ATOM 14735	N VAL D 439	30.906	81.219	105.841	1.00	30.52	N
ATOM 14737	CA VAL D 439	31.718	80.257	105.086	1.00	30.75	C
ATOM 14739	CB VAL D 439	31.245	80.054	103.598	1.00	30.81	C
ATOM 14741	CG1 VAL D 439	29.738	79.847	103.528	1.00	30.29	C

ATOM 14745	CG2 VAL D 439	31.684	81.193	102.687	1.00	31.23	C
ATOM 14749	C VAL D 439	33.222	80.606	105.182	1.00	30.44	C
ATOM 14750	O VAL D 439	34.065	79.711	105.219	1.00	29.96	O
ATOM 14751	N PHE D 440	33.534	81.899	105.276	1.00	30.38	N
ATOM 14753	CA PHE D 440	34.904	82.361	105.518	1.00	30.41	C
ATOM 14755	CB PHE D 440	35.013	83.866	105.270	1.00	30.44	C
ATOM 14758	CG PHE D 440	36.393	84.311	104.877	1.00	30.67	C
ATOM 14759	CD1 PHE D 440	36.805	84.243	103.550	1.00	30.83	C
ATOM 14761	CE1 PHE D 440	38.082	84.648	103.176	1.00	31.37	C
ATOM 14763	CZ PHE D 440	38.962	85.117	104.138	1.00	31.42	C
ATOM 14765	CE2 PHE D 440	38.559	85.183	105.471	1.00	31.19	C
ATOM 14767	CD2 PHE D 440	37.282	84.782	105.831	1.00	30.44	C
ATOM 14769	C PHE D 440	35.401	82.033	106.936	1.00	30.45	C
ATOM 14770	O PHE D 440	36.591	81.805	107.147	1.00	29.95	O
ATOM 14771	N ALA D 441	34.478	82.015	107.898	1.00	30.73	N
ATOM 14773	CA ALA D 441	34.781	81.635	109.285	1.00	30.85	C
ATOM 14775	CB ALA D 441	33.634	82.049	110.209	1.00	30.85	C
ATOM 14779	C ALA D 441	35.053	80.133	109.441	1.00	30.94	C
ATOM 14780	O ALA D 441	35.767	79.727	110.356	1.00	30.83	O
ATOM 14781	N LEU D 442	34.467	79.315	108.565	1.00	31.13	N
ATOM 14783	CA LEU D 442	34.731	77.873	108.555	1.00	31.31	C
ATOM 14785	CB LEU D 442	33.725	77.135	107.664	1.00	31.20	C
ATOM 14788	CG LEU D 442	32.238	77.265	108.022	1.00	30.88	C
ATOM 14790	CD1 LEU D 442	31.386	76.727	106.887	1.00	30.89	C
ATOM 14794	CD2 LEU D 442	31.890	76.563	109.330	1.00	30.24	C
ATOM 14798	C LEU D 442	36.158	77.592	108.071	1.00	31.51	C
ATOM 14799	O LEU D 442	36.813	76.673	108.564	1.00	31.53	O
ATOM 14800	N ARG D 443	36.628	78.398	107.116	1.00	31.71	N
ATOM 14802	CA ARG D 443	37.975	78.262	106.561	1.00	31.95	C
ATOM 14804	CB ARG D 443	38.206	79.267	105.420	1.00	31.99	C
ATOM 14807	CG ARG D 443	37.193	79.183	104.280	1.00	31.97	C
ATOM 14810	CD ARG D 443	37.816	79.070	102.902	1.00	32.22	C
ATOM 14813	NE ARG D 443	38.495	77.785	102.709	1.00	32.12	N
ATOM 14815	CZ ARG D 443	38.678	77.178	101.533	1.00	31.98	C
ATOM 14816	NH1 ARG D 443	38.243	77.723	100.398	1.00	31.78	N
ATOM 14819	NH2 ARG D 443	39.307	76.008	101.492	1.00	32.13	N
ATOM 14822	C ARG D 443	39.056	78.451	107.628	1.00	32.19	C
ATOM 14823	O ARG D 443	39.853	77.538	107.877	1.00	32.10	O
ATOM 14824	N LEU D 444	39.072	79.635	108.246	1.00	32.28	N
ATOM 14826	CA LEU D 444	40.090	80.001	109.235	1.00	32.40	C
ATOM 14828	CB LEU D 444	41.001	81.122	108.692	1.00	32.38	C
ATOM 14831	CG LEU D 444	42.329	80.722	108.016	1.00	32.37	C
ATOM 14833	CD1 LEU D 444	42.378	81.192	106.562	1.00	32.45	C
ATOM 14837	CD2 LEU D 444	43.551	81.254	108.782	1.00	31.94	C
ATOM 14841	C LEU D 444	39.412	80.446	110.529	1.00	32.42	C
ATOM 14842	O LEU D 444	38.555	79.740	111.067	1.00	32.44	O
ATOM 14843	N LYS D 448	34.947	72.050	107.030	1.00	34.64	N
ATOM 14845	CA LYS D 448	34.907	71.929	105.578	1.00	34.99	C

185

ATOM 14847	CB	LYS D 448	36.021	70.996	105.093	1.00	35.07	C
ATOM 14850	CG	LYS D 448	36.561	71.335	103.697	1.00	35.46	C
ATOM 14853	CD	LYS D 448	38.021	70.913	103.507	1.00	35.52	C
ATOM 14856	CE	LYS D 448	38.782	71.888	102.613	1.00	35.75	C
ATOM 14859	NZ	LYS D 448	38.790	73.273	103.170	1.00	35.45	N
ATOM 14863	C	LYS D 448	33.545	71.424	105.087	1.00	35.13	C
ATOM 14864	O	LYS D 448	32.897	70.608	105.753	1.00	34.83	O
ATOM 14865	N	LEU D 449	33.141	71.901	103.905	1.00	35.26	N
ATOM 14867	CA	LEU D 449	31.821	71.627	103.330	1.00	35.21	C
ATOM 14869	CB	LEU D 449	31.285	72.871	102.618	1.00	35.38	C
ATOM 14872	CG	LEU D 449	30.930	74.105	103.453	1.00	35.63	C
ATOM 14874	CD1	LEU D 449	32.179	74.874	103.879	1.00	35.69	C
ATOM 14878	CD2	LEU D 449	30.001	75.006	102.658	1.00	35.86	C
ATOM 14882	C	LEU D 449	31.847	70.479	102.314	1.00	34.98	C
ATOM 14883	O	LEU D 449	32.843	70.282	101.624	1.00	35.07	O
ATOM 14884	N	PRO D 450	30.743	69.741	102.210	1.00	34.76	N
ATOM 14885	CA	PRO D 450	30.616	68.660	101.228	1.00	34.77	C
ATOM 14887	CB	PRO D 450	29.351	67.927	101.682	1.00	34.69	C
ATOM 14890	CG	PRO D 450	28.564	68.941	102.379	1.00	34.66	C
ATOM 14893	CD	PRO D 450	29.526	69.877	103.025	1.00	34.64	C
ATOM 14896	C	PRO D 450	30.461	69.206	99.805	1.00	34.79	C
ATOM 14897	O	PRO D 450	30.167	70.400	99.685	1.00	34.49	O
ATOM 14898	N	PRO D 451	30.619	68.360	98.773	1.00	34.72	N
ATOM 14899	CA	PRO D 451	30.835	68.818	97.384	1.00	34.70	C
ATOM 14901	CB	PRO D 451	31.029	67.504	96.597	1.00	34.62	C
ATOM 14904	CG	PRO D 451	31.349	66.471	97.617	1.00	34.64	C
ATOM 14907	CD	PRO D 451	30.599	66.886	98.858	1.00	34.77	C
ATOM 14910	C	PRO D 451	29.720	69.669	96.734	1.00	34.74	C
ATOM 14911	O	PRO D 451	30.038	70.702	96.133	1.00	34.68	O
ATOM 14912	N	LEU D 452	28.460	69.242	96.835	1.00	34.79	N
ATOM 14914	CA	LEU D 452	27.345	69.976	96.214	1.00	34.88	C
ATOM 14916	CB	LEU D 452	26.040	69.161	96.309	1.00	34.89	C
ATOM 14919	CG	LEU D 452	24.684	69.814	95.969	1.00	35.02	C
ATOM 14921	CD1	LEU D 452	24.629	70.474	94.591	1.00	34.55	C
ATOM 14925	CD2	LEU D 452	23.592	68.757	96.069	1.00	35.62	C
ATOM 14929	C	LEU D 452	27.148	71.405	96.770	1.00	34.94	C
ATOM 14930	O	LEU D 452	26.815	72.318	96.016	1.00	34.78	O
ATOM 14931	N	LEU D 453	27.347	71.592	98.077	1.00	35.18	N
ATOM 14933	CA	LEU D 453	27.282	72.926	98.700	1.00	35.02	C
ATOM 14935	CB	LEU D 453	27.171	72.820	100.224	1.00	34.90	C
ATOM 14938	CG	LEU D 453	26.136	71.864	100.796	1.00	34.34	C
ATOM 14940	CD1	LEU D 453	26.089	71.983	102.308	1.00	33.70	C
ATOM 14944	CD2	LEU D 453	24.790	72.163	100.175	1.00	34.72	C
ATOM 14948	C	LEU D 453	28.537	73.723	98.376	1.00	35.40	C
ATOM 14949	O	LEU D 453	28.492	74.945	98.240	1.00	35.08	O
ATOM 14950	N	SER D 454	29.655	73.008	98.254	1.00	35.96	N
ATOM 14952	CA	SER D 454	30.975	73.616	98.087	1.00	36.46	C
ATOM 14954	CB	SER D 454	32.071	72.577	98.372	1.00	36.43	C

ATOM 14957	OG	SER D 454	33.361	73.123	98.171	1.00	36.10	O
ATOM 14959	C	SER D 454	31.237	74.267	96.718	1.00	36.90	C
ATOM 14960	O	SER D 454	32.242	74.956	96.571	1.00	37.02	O
ATOM 14961	N	GLU D 455	30.381	74.042	95.718	1.00	37.37	N
ATOM 14963	CA	GLU D 455	30.544	74.722	94.422	1.00	37.88	C
ATOM 14965	CB	GLU D 455	30.527	73.727	93.254	1.00	37.89	C
ATOM 14968	CG	GLU D 455	31.835	73.692	92.452	1.00	37.95	C
ATOM 14971	CD	GLU D 455	31.982	74.834	91.444	1.00	37.79	C
ATOM 14972	OE1	GLU D 455	33.081	74.967	90.855	1.00	36.77	O
ATOM 14973	OE2	GLU D 455	31.013	75.598	91.230	1.00	37.92	O
ATOM 14974	C	GLU D 455	29.503	75.820	94.213	1.00	38.30	C
ATOM 14975	O	GLU D 455	29.726	76.754	93.437	1.00	38.43	O
ATOM 14976	N	ILE D 456	28.377	75.706	94.908	1.00	38.61	N
ATOM 14978	CA	ILE D 456	27.346	76.730	94.861	1.00	39.00	C
ATOM 14980	CB	ILE D 456	25.980	76.133	95.311	1.00	39.07	C
ATOM 14982	CG1	ILE D 456	25.531	75.080	94.287	1.00	39.36	C
ATOM 14985	CD1	ILE D 456	24.069	74.671	94.366	1.00	39.58	C
ATOM 14989	CG2	ILE D 456	24.910	77.214	95.447	1.00	39.38	C
ATOM 14993	C	ILE D 456	27.761	77.939	95.700	1.00	39.21	C
ATOM 14994	O	ILE D 456	27.422	79.077	95.358	1.00	39.19	O
ATOM 14995	N	TRP D 457	28.520	77.698	96.769	1.00	39.54	N
ATOM 14997	CA	TRP D 457	28.857	78.749	97.741	1.00	39.76	C
ATOM 14999	CB	TRP D 457	28.281	78.414	99.113	1.00	39.62	C
ATOM 15002	CG	TRP D 457	26.820	78.269	99.108	1.00	38.92	C
ATOM 15003	CD1	TRP D 457	25.927	78.926	98.312	1.00	38.56	C
ATOM 15005	NE1	TRP D 457	24.648	78.519	98.601	1.00	39.10	N
ATOM 15007	CE2	TRP D 457	24.701	77.589	99.605	1.00	38.98	C
ATOM 15008	CD2	TRP D 457	26.059	77.407	99.941	1.00	38.91	C
ATOM 15009	CE3	TRP D 457	26.383	76.501	100.953	1.00	39.11	C
ATOM 15011	CZ3	TRP D 457	25.366	75.818	101.582	1.00	39.86	C
ATOM 15013	CH2	TRP D 457	24.029	76.010	101.215	1.00	39.88	C
ATOM 15015	CZ2	TRP D 457	23.677	76.895	100.232	1.00	39.05	C
ATOM 15017	C	TRP D 457	30.342	79.021	97.909	1.00	40.23	C
ATOM 15018	O	TRP D 457	30.725	80.152	98.223	1.00	40.26	O
ATOM 15019	N	ASP D 458	31.178	78.001	97.719	1.00	40.77	N
ATOM 15021	CA	ASP D 458	32.626	78.189	97.802	1.00	41.23	C
ATOM 15023	CB	ASP D 458	33.326	76.921	98.334	1.00	41.27	C
ATOM 15026	CG	ASP D 458	34.181	77.191	99.564	1.00	41.37	C
ATOM 15027	OD1	ASP D 458	35.428	77.195	99.444	1.00	41.88	O
ATOM 15028	OD2	ASP D 458	33.692	77.399	100.692	1.00	40.74	O
ATOM 15029	C	ASP D 458	33.182	78.632	96.438	1.00	41.54	C
ATOM 15030	O	ASP D 458	34.243	78.182	96.015	1.00	41.72	O
ATOM 15031	N	VAL D 459	32.450	79.516	95.756	1.00	41.97	N
ATOM 15033	CA	VAL D 459	32.975	80.218	94.588	1.00	42.46	C
ATOM 15035	CB	VAL D 459	31.942	81.206	93.928	1.00	42.53	C
ATOM 15037	CG1	VAL D 459	32.298	81.438	92.446	1.00	42.39	C
ATOM 15041	CG2	VAL D 459	30.478	80.728	94.080	1.00	42.29	C
ATOM 15045	C	VAL D 459	34.197	81.015	95.067	1.00	42.82	C

ATOM 15046	O VAL D 459	35.252	81.026	94.402	1.00	42.59	O
ATOM 15047	N ALA D 460	34.026	81.664	96.228	1.00	43.00	N
ATOM 15049	CA ALA D 460	35.110	82.301	96.978	1.00	43.14	C
ATOM 15051	CB ALA D 460	35.816	81.264	97.854	1.00	43.11	C
ATOM 15055	C ALA D 460	36.121	83.020	96.079	1.00	43.30	C
ATOM 15056	O ALA D 460	35.747	83.832	95.227	1.00	43.57	O
ATOM 15057	O37 GW3 D 500	13.548	70.869	105.884	1.00	16.41	O
ATOM 15058	C35 GW3 D 500	13.232	70.601	104.723	1.00	16.39	C
ATOM 15059	O36 GW3 D 500	12.236	69.888	104.451	1.00	15.82	O
ATOM 15060	C34 GW3 D 500	14.080	71.074	103.567	1.00	17.86	C
ATOM 15063	C32 GW3 D 500	15.021	72.154	104.070	1.00	16.05	C
ATOM 15064	C33 GW3 D 500	16.253	71.826	104.636	1.00	18.02	C
ATOM 15066	C31 GW3 D 500	14.616	73.476	104.054	1.00	15.89	C
ATOM 15068	C30 GW3 D 500	15.423	74.480	104.587	1.00	17.32	C
ATOM 15070	C29 GW3 D 500	16.648	74.153	105.166	1.00	17.58	C
ATOM 15072	C28 GW3 D 500	17.060	72.823	105.192	1.00	18.10	C
ATOM 15073	O27 GW3 D 500	18.283	72.474	105.720	1.00	19.56	O
ATOM 15074	C26 GW3 D 500	18.704	72.905	107.021	1.00	20.06	C
ATOM 15077	C25 GW3 D 500	19.806	73.952	106.982	1.00	18.98	C
ATOM 15080	C17 GW3 D 500	20.478	73.970	108.355	1.00	18.31	C
ATOM 15083	N09 GW3 D 500	21.606	74.885	108.246	1.00	19.97	N
ATOM 15084	C16 GW3 D 500	22.784	74.316	107.594	1.00	24.93	C
ATOM 15087	C18 GW3 D 500	23.430	75.263	106.611	1.00	30.42	C
ATOM 15088	C19 GW3 D 500	24.890	75.368	106.619	1.00	35.20	C
ATOM 15089	CL4 GW3 D 500	25.828	74.361	107.749	1.00	47.85	CL
ATOM 15090	C23 GW3 D 500	22.720	76.043	105.720	1.00	30.51	C
ATOM 15092	C22 GW3 D 500	23.392	76.905	104.852	1.00	31.39	C
ATOM 15094	C21 GW3 D 500	24.778	77.026	104.837	1.00	33.11	C
ATOM 15096	C20 GW3 D 500	25.567	76.275	105.690	1.00	36.39	C
ATOM 15097	C39 GW3 D 500	27.070	76.362	105.735	1.00	39.23	C
ATOM 15098	F41 GW3 D 500	27.358	77.126	106.788	1.00	39.59	F
ATOM 15099	F40 GW3 D 500	27.575	76.876	104.610	1.00	41.53	F
ATOM 15100	F42 GW3 D 500	27.580	75.145	105.918	1.00	39.38	F
ATOM 15101	C08 GW3 D 500	21.717	76.170	108.940	1.00	17.07	C
ATOM 15104	C07 GW3 D 500	20.438	77.064	108.875	1.00	16.36	C
ATOM 15106	C01 GW3 D 500	20.374	77.962	110.062	1.00	11.02	C
ATOM 15107	C02 GW3 D 500	21.519	78.494	110.615	1.00	10.22	C
ATOM 15109	C03 GW3 D 500	21.426	79.284	111.743	1.00	12.67	C
ATOM 15111	C04 GW3 D 500	20.203	79.550	112.321	1.00	10.69	C
ATOM 15113	C05 GW3 D 500	19.072	79.006	111.767	1.00	11.38	C
ATOM 15115	C06 GW3 D 500	19.151	78.212	110.639	1.00	9.62	C
ATOM 15117	C10 GW3 D 500	20.374	77.856	107.634	1.00	14.02	C
ATOM 15118	C11 GW3 D 500	19.252	77.742	106.835	1.00	14.79	C
ATOM 15120	C12 GW3 D 500	19.178	78.464	105.639	1.00	15.98	C
ATOM 15122	C13 GW3 D 500	20.230	79.295	105.247	1.00	15.10	C
ATOM 15124	C14 GW3 D 500	21.350	79.408	106.057	1.00	16.14	C
ATOM 15126	C15 GW3 D 500	21.419	78.684	107.256	1.00	15.70	C
ATOM 15128	OH2 HOH X 1	18.790	0.840	49.638	1.00	22.14	O

188

ATOM	15131	OH2 HOH X	2	4.938	10.777	59.364	1.00	37.13	O
ATOM	15134	OH2 HOH X	3	18.192	16.160	44.592	1.00	37.55	O
ATOM	15137	OH2 HOH X	4	17.987	8.850	28.963	1.00	27.85	O
ATOM	15140	OH2 HOH X	5	40.090	11.660	53.242	1.00	30.61	O
ATOM	15143	OH2 HOH X	6	2.908	108.597	106.139	1.00	26.43	O
ATOM	15146	OH2 HOH X	7	14.579	16.383	31.965	1.00	21.09	O
ATOM	15149	OH2 HOH X	8	27.923	32.560	63.897	1.00	26.46	O
ATOM	15152	OH2 HOH X	9	18.516	103.152	118.880	1.00	46.43	O
ATOM	15155	OH2 HOH X	10	35.600	11.075	53.954	1.00	35.17	O
ATOM	15158	OH2 HOH X	11	17.891	86.433	116.773	1.00	28.72	O
ATOM	15161	OH2 HOH X	12	20.659	102.067	106.686	1.00	39.04	O
ATOM	15164	OH2 HOH X	13	6.255	5.594	60.601	1.00	35.66	O
ATOM	15167	OH2 HOH X	14	12.446	10.305	34.580	1.00	33.82	O
ATOM	15170	OH2 HOH X	15	21.905	103.033	119.421	1.00	46.04	O
ATOM	15173	OH2 HOH X	16	15.495	79.869	119.859	1.00	27.60	O
ATOM	15176	OH2 HOH X	17	22.863	11.320	39.642	1.00	41.61	O
ATOM	15179	OH2 HOH X	18	8.709	0.631	56.792	1.00	38.76	O
ATOM	15182	OH2 HOH X	19	7.037	9.215	65.433	1.00	43.83	O
ATOM	15185	OH2 HOH X	20	54.635	7.068	56.437	1.00	41.98	O
ATOM	15188	OH2 HOH X	21	42.480	26.500	64.819	1.00	41.55	O
ATOM	15191	OH2 HOH X	22	8.305	5.264	32.612	1.00	41.61	O
ATOM	15194	OH2 HOH X	23	23.420	-0.054	51.116	1.00	34.49	O
ATOM	15197	OH2 HOH X	24	37.247	30.829	49.611	1.00	33.54	O
ATOM	15200	OH2 HOH X	25	15.797	113.527	113.002	1.00	44.57	O
ATOM	15203	OH2 HOH X	26	16.914	8.250	46.298	1.00	32.98	O
ATOM	15206	OH2 HOH X	27	24.058	37.767	62.019	1.00	46.39	O
ATOM	15209	OH2 HOH X	28	7.479	85.903	114.822	1.00	38.76	O
ATOM	15212	OH2 HOH X	29	-0.801	10.033	48.373	1.00	28.12	O
ATOM	15215	OH2 HOH X	30	25.359	6.806	37.379	1.00	44.68	O
ATOM	15218	OH2 HOH X	31	26.245	22.106	65.105	1.00	44.09	O
ATOM	15221	OH2 HOH X	32	3.043	26.213	48.170	1.00	39.25	O
ATOM	15224	OH2 HOH X	33	14.270	108.533	121.439	1.00	45.88	O
ATOM	15227	OH2 HOH X	34	25.897	99.315	110.080	1.00	49.71	O
ATOM	15230	OH2 HOH X	35	39.275	38.100	54.172	1.00	34.47	O
ATOM	15233	OH2 HOH X	36	12.488	90.316	114.086	1.00	30.18	O
ATOM	15236	OH2 HOH X	37	13.583	83.713	117.672	1.00	24.50	O
ATOM	15239	OH2 HOH X	38	7.331	87.765	116.864	1.00	38.02	O
ATOM	15242	OH2 HOH X	39	40.322	4.034	51.416	1.00	45.41	O
ATOM	15245	OH2 HOH X	40	38.097	9.828	60.620	1.00	32.43	O
ATOM	15248	OH2 HOH X	41	19.891	15.332	48.107	1.00	51.05	O
ATOM	15251	OH2 HOH X	42	35.963	16.094	59.088	1.00	27.23	O
ATOM	15254	OH2 HOH X	43	22.170	4.237	49.614	1.00	41.38	O
ATOM	15257	OH2 HOH X	44	16.930	1.886	36.884	1.00	29.31	O
ATOM	15260	OH2 HOH X	45	20.557	2.022	40.300	1.00	34.55	O
ATOM	15263	OH2 HOH X	46	8.116	2.675	58.430	1.00	37.39	O
ATOM	15266	OH2 HOH X	47	6.631	23.602	49.344	1.00	33.65	O
ATOM	15269	OH2 HOH X	48	29.292	18.080	63.496	1.00	41.30	O
ATOM	15272	OH2 HOH X	49	21.029	10.754	52.135	1.00	28.27	O

ATOM	15275	OH2 HOH X	50	40.045	7.948	61.610	1.00	39.89	O
ATOM	15278	OH2 HOH X	51	30.259	15.117	54.039	1.00	32.35	O
ATOM	15281	OH2 HOH X	52	4.686	6.030	36.466	1.00	44.52	O
ATOM	15284	OH2 HOH X	53	-0.309	104.932	109.683	1.00	43.95	O
ATOM	15287	OH2 HOH X	54	37.761	8.149	51.122	1.00	34.45	O
ATOM	15290	OH2 HOH X	55	33.116	10.370	57.122	1.00	38.57	O
ATOM	15293	OH2 HOH X	56	25.873	83.678	100.088	1.00	57.88	O
ATOM	15296	OH2 HOH X	57	22.062	-4.925	44.017	1.00	68.59	O
ATOM	15299	OH2 HOH X	58	5.594	0.015	62.950	1.00	33.01	O
ATOM	15302	OH2 HOH X	59	21.344	0.929	49.329	1.00	35.86	O
ATOM	15305	OH2 HOH X	60	23.011	80.836	97.026	1.00	44.93	O
ATOM	15308	OH2 HOH X	61	38.255	9.351	53.248	1.00	38.17	O
ATOM	15311	OH2 HOH X	62	3.401	9.718	42.821	1.00	32.45	O
ATOM	15314	OH2 HOH X	63	54.581	10.732	50.027	1.00	36.65	O
ATOM	15317	OH2 HOH X	64	18.363	1.123	39.091	1.00	35.93	O
ATOM	15320	OH2 HOH X	65	39.035	16.456	71.109	1.00	34.41	O
ATOM	15323	OH2 HOH X	66	19.864	12.477	50.045	1.00	35.67	O
ATOM	15326	OH2 HOH X	67	4.671	81.137	115.138	1.00	57.79	O
ATOM	15329	OH2 HOH X	68	13.701	26.691	60.440	1.00	43.05	O
ATOM	15332	OH2 HOH X	69	8.689	99.115	108.556	1.00	50.21	O
ATOM	15335	OH2 HOH X	70	8.632	0.913	39.567	1.00	55.13	O
ATOM	15338	OH2 HOH X	71	44.439	0.230	51.503	1.00	41.75	O
ATOM	15341	OH2 HOH X	72	31.733	15.438	73.923	1.00	43.62	O
ATOM	15344	OH2 HOH X	73	33.724	35.582	45.322	1.00	59.46	O
ATOM	15347	OH2 HOH X	74	22.663	-5.001	74.941	1.00	48.52	O
ATOM	15350	OH2 HOH X	75	15.244	79.241	122.471	1.00	33.27	O
ATOM	15353	OH2 HOH X	76	-1.636	9.989	50.713	1.00	35.08	O
ATOM	15356	OH2 HOH X	77	2.873	122.362	104.765	1.00	53.58	O
ATOM	15359	OH2 HOH X	78	52.828	5.694	54.544	1.00	51.46	O
ATOM	15362	OH2 HOH X	79	21.239	28.542	44.653	1.00	46.33	O
ATOM	15365	OH2 HOH X	80	15.730	61.732	102.489	1.00	56.97	O
ATOM	15368	OH2 HOH X	81	30.963	100.646	95.162	1.00	58.22	O
ATOM	15371	OH2 HOH X	82	47.472	-0.901	51.679	1.00	71.44	O
ATOM	15374	OH2 HOH X	83	14.125	61.063	100.439	1.00	69.04	O
ATOM	15377	OH2 HOH X	84	29.954	16.118	56.622	1.00	31.88	O
ATOM	15380	OH2 HOH X	85	48.226	19.437	66.814	1.00	59.42	O
ATOM	15383	OH2 HOH X	86	34.195	5.437	65.636	1.00	49.75	O
ATOM	15386	OH2 HOH X	87	17.214	94.595	120.054	1.00	44.08	O
ATOM	15389	OH2 HOH X	88	-1.485	26.765	48.129	1.00	47.47	O
ATOM	15392	OH2 HOH X	89	43.065	31.378	62.592	1.00	44.61	O
ATOM	15395	OH2 HOH X	90	21.758	15.965	46.909	1.00	48.82	O
ATOM	15398	OH2 HOH X	91	52.344	29.369	43.701	1.00	54.42	O
ATOM	15401	OH2 HOH X	92	6.651	77.153	110.860	1.00	51.64	O
ATOM	15404	OH2 HOH X	93	0.475	17.406	46.849	1.00	40.89	O
ATOM	15407	OH2 HOH X	94	50.234	25.863	52.532	1.00	65.87	O
ATOM	15410	OH2 HOH X	95	4.877	85.178	115.055	1.00	47.96	O
ATOM	15413	OH2 HOH X	96	0.040	19.957	47.655	1.00	59.57	O
ATOM	15416	OH2 HOH X	97	27.106	32.993	66.183	1.00	36.27	O

190

ATOM	15419	OH2 HOH X 98	14.955	25.599	61.997	1.00	58.33	O
ATOM	15422	OH2 HOH X 99	38.131	8.445	58.231	1.00	35.80	O
ATOM	15425	OH2 HOH X 100	26.311	7.055	62.966	1.00	42.34	O
ATOM	15428	OH2 HOH X 101	-0.177	6.206	43.909	1.00	42.96	O
ATOM	15431	OH2 HOH X 102	35.146	74.240	103.309	1.00	64.14	O
ATOM	15434	OH2 HOH X 103	30.052	5.476	40.804	1.00	60.77	O
ATOM	15437	OH2 HOH X 104	10.184	12.725	34.015	1.00	51.28	O
ATOM	15440	OH2 HOH X 105	50.966	22.574	48.701	1.00	42.22	O
ATOM	15443	OH2 HOH X 106	2.828	11.507	41.214	1.00	52.52	O
ATOM	15446	OH2 HOH X 107	0.946	27.042	58.798	1.00	58.46	O
ATOM	15449	OH2 HOH X 108	30.446	27.155	42.836	1.00	51.90	O
ATOM	15452	OH2 HOH X 109	36.763	7.541	31.764	1.00	62.01	O
ATOM	15455	OH2 HOH X 110	13.380	98.632	108.720	1.00	37.74	O
ATOM	15458	OH2 HOH X 111	20.449	4.213	42.272	1.00	35.49	O
ATOM	15461	OH2 HOH X 112	37.312	38.390	53.133	1.00	51.36	O
ATOM	15464	OH2 HOH X 113	19.000	10.393	72.193	1.00	50.84	O
ATOM	15467	OH2 HOH X 114	17.903	84.774	91.200	1.00	60.01	O
ATOM	15470	OH2 HOH X 115	18.055	-1.585	39.255	1.00	56.00	O
ATOM	15473	OH2 HOH X 116	3.996	6.993	60.999	1.00	49.86	O
ATOM	15476	OH2 HOH X 117	20.271	10.535	30.631	1.00	42.61	O
ATOM	15479	OH2 HOH X 118	11.263	-9.614	71.116	1.00	42.90	O
ATOM	15482	OH2 HOH X 119	-2.695	12.950	57.487	1.00	37.29	O
ATOM	15485	OH2 HOH X 120	29.885	-23.535	52.934	1.00	77.91	O
ATOM	15488	OH2 HOH X 121	-2.616	7.551	45.678	1.00	47.99	O
ATOM	15491	OH2 HOH X 122	-2.824	10.741	58.817	1.00	42.09	O
ATOM	15494	OH2 HOH X 123	26.639	111.044	114.619	1.00	57.82	O
ATOM	15497	OH2 HOH X 124	16.140	88.966	97.087	1.00	57.17	O
ATOM	15500	OH2 HOH X 125	17.235	127.107	106.446	1.00	53.73	O
ATOM	15503	OH2 HOH X 126	21.952	2.395	44.236	1.00	42.93	O
ATOM	15506	OH2 HOH X 127	9.277	74.512	114.665	1.00	48.97	O
ATOM	15509	OH2 HOH X 128	17.683	78.291	123.117	1.00	48.65	O
ATOM	15512	OH2 HOH X 129	1.510	120.767	105.909	1.00	50.36	O
ATOM	15515	OH2 HOH X 130	43.242	6.582	58.231	1.00	62.99	O
ATOM	15518	OH2 HOH X 131	15.242	61.390	105.392	1.00	59.52	O
ATOM	15521	OH2 HOH X 132	-7.813	16.881	54.110	1.00	54.24	O
ATOM	15524	OH2 HOH X 133	39.761	32.790	49.685	1.00	50.24	O
ATOM	15527	OH2 HOH X 134	5.502	102.442	113.079	1.00	54.03	O
ATOM	15530	OH2 HOH X 135	5.245	83.800	107.181	1.00	56.11	O
ATOM	15533	OH2 HOH X 136	9.888	-10.585	68.838	1.00	62.25	O
ATOM	15536	OH2 HOH X 137	18.053	89.757	110.269	1.00	57.84	O
ATOM	15539	OH2 HOH X 138	20.049	122.164	106.270	1.00	69.14	O
ATOM	15542	OH2 HOH X 139	2.434	9.115	59.663	1.00	48.87	O
ATOM	15545	OH2 HOH X 140	29.074	7.062	34.979	1.00	61.08	O
ATOM	15548	OH2 HOH X 141	15.999	19.969	68.679	1.00	54.12	O
ATOM	15551	OH2 HOH X 142	7.714	17.165	68.472	1.00	60.71	O
ATOM	15554	OH2 HOH X 143	4.115	13.818	66.067	1.00	59.59	O
ATOM	15557	OH2 HOH X 144	50.125	11.901	55.483	1.00	48.36	O
ATOM	15560	OH2 HOH X 145	14.393	30.385	44.476	1.00	57.65	O

191

ATOM	15563	OH2 HOH X 146	2.986	-16.653	58.015	1.00	54.32	O
ATOM	15566	OH2 HOH X 147	13.508	77.817	123.053	1.00	47.73	O
ATOM	15569	OH2 HOH X 148	30.902	-8.372	64.994	1.00	57.51	O
ATOM	15572	OH2 HOH X 149	21.360	40.987	59.280	1.00	61.05	O
ATOM	15575	OH2 HOH X 150	31.566	0.933	61.366	1.00	47.84	O
ATOM	15578	OH2 HOH X 151	25.717	98.206	123.290	1.00	56.66	O
ATOM	15581	OH2 HOH X 152	24.279	0.340	77.562	1.00	58.47	O
ATOM	15584	OH2 HOH X 153	47.547	-0.197	46.911	1.00	58.77	O
ATOM	15587	OH2 HOH X 154	13.581	28.505	62.736	1.00	55.78	O
ATOM	15590	OH2 HOH X 155	15.868	67.635	118.108	1.00	63.74	O
ATOM	15593	OH2 HOH X 156	6.738	99.064	109.444	1.00	66.64	O
ATOM	15596	OH2 HOH X 157	39.958	7.874	54.949	1.00	63.85	O
ATOM	15599	OH2 HOH X 158	7.403	91.557	109.576	1.00	55.77	O
ATOM	15602	OH2 HOH X 159	5.726	12.892	33.667	1.00	41.75	O
ATOM	15605	OH2 HOH X 160	28.386	37.421	67.590	1.00	50.20	O
ATOM	15608	OH2 HOH X 161	21.402	14.875	66.629	1.00	55.99	O
ATOM	15611	OH2 HOH X 162	48.282	7.498	59.343	1.00	64.22	O
ATOM	15614	OH2 HOH X 163	6.367	7.912	33.782	1.00	55.31	O
ATOM	15617	OH2 HOH X 164	22.722	62.779	126.079	1.00	56.29	O
ATOM	15620	OH2 HOH X 165	8.660	73.673	117.316	1.00	39.82	O
ATOM	15623	OH2 HOH X 166	39.448	1.815	50.281	1.00	52.32	O
ATOM	15626	OH2 HOH X 167	62.599	23.311	47.584	1.00	61.70	O
END								

REMARK ***** CONFIDENTIAL *****
REMARK THESE ATOMIC COORDINATES AND/OR STRUCTURE FACTORS ARE
PROPRIETARY
REMARK INFORMATION BELONGING TO KARO BIO AB ,STOCKHOLM,
SWEDEN.
REMARK THEY ARE TO BE HELD IN CONFIDENCE AND ARE NOT TO BE USED
FOR
REMARK PURPOSES OF EXTERNAL PUBLICATION OR REDISTRIBUTED TO
ANY
REMARK SOURCE OUTSIDE OF KARO BIO WITHOUT AUTHORIZATION.
REMARK *****
REMARK
TITLE HUMAN LXR BETA HORMONE RECEPTOR COMPLEXED WITH
TITLE 2 KB008444/T0901317 COMPLEX
REMARK
REMARK ATOMIC COORDINATES OF A CRYSTAL STRUCTURE
REMARK
REMARK DEPOSITOR: MATHIAS FARNEGARDH
(MATHIAS.FARNEGARDH@KAROBIO.SE)
REMARK DEPOSITION DATE 5-SEP-2002
REMARK
REMARK THE ATOMIC COORDINATES AND/OR STRUCTURE FACTORS IN
THIS FILE ARE THE
REMARK EXPERIMENTAL RESULTS OF:
REMARK
REMARK MATHIAS FARNEGARDH, KARO BIO AB
REMARK NOVUM, 141 57 HUDDINGE, SWEDEN
REMARK
REMARK IMPORTANT NOTE #####
REMARK THIS DATA WAS COLLECTED RAPIDLY ON AN HOME SOURCE
(RIGAKU RU300)
REMARK TO DECREASE THE AMOUNT OF LIGAND SPLITTING THE
RESOLUTION IS DUE TO
REMARK THIS ONLY 2.9 A. IN ORDER TO TAKE ADVANTAGE OF THE HIGH
RESOLUTION
REMARK STRUCTURE OF THIS COMPLEX (WHERE THE LIGAND IS SPLIT BY
XRAY RADIATION)
REMARK WAS THE HIGH RESOLUTION STRUCTURE l_xrb_KB008444_split.pdb
USED AS THE
REMARK STARTING MODEL FOR THIS REFINEMENT INCLUDING ALL THE
WATERS.
REMARK THE DIFFERENCES BETWEEN THE TWO STRUCTURES ARE ONLY
LOCATED AT THE N-S
REMARK SPLITTING POINT OF THE LIGAND.
REMARK
REMARK THIS ENTRY CONTAINS THE COMPLETE CONTENT OF THE
ASYMETRIC UNIT

REMARK THAT COULD BE BUILT INTO INTERPRETABLE ELECTRON DENSITIES
REMARK IT CONTAINS 4 INDEPENDENTLY REFINED PROTEIN MONOMERS
REMARK CHAIN A 220-253, 261-458
REMARK A500 IS THE LIGAND
REMARK CHAIN B 219-258, 261-458 (GLN219,LEU330 MODELLED AS ALA)
REMARK B500 IS THE LIGAND
REMARK CHAIN C 220-243, 248-254, 259-458
REMARK C500 IS THE LIGAND
REMARK CHAIN D 220-242, 249-252, 260-329, 333-443, 448-458
REMARK (PHE329 MODELLED AS ALA) D500 IS THE LIGAND
REMARK THE PROTEIN CRYSTALLIZED CONTAIN RESIDUES 213-461, THE GAPS IN THE
REMARK STRUCTURE ARE DUE TO UNINTERPRETABLE ELECTRON DENSITIES IN THESE
REMARK PARTICULAR REGIONS
HEADER LXR B+KB008444/T0901317 05-SEP-02 XXXX
COMPND MOL_ID: 1;
COMPND 2 MOLECULE: LIVER X RECEPTOR BETA;
COMPND 3 CHAIN: A, B, C, D;
COMPND 4 FRAGMENT: LIGAND BINDING DOMAIN;
COMPND 5 SYNONYM: LXR B;
REMARK 3
REMARK 3 REFINEMENT.
REMARK 3 PROGRAM : REFMAC 5.1.19
REMARK 3 AUTHORS : MURSHUDOV,VAGIN,DODSON
REMARK 3
REMARK 3 REFINEMENT TARGET : MAXIMUM LIKELIHOOD
REMARK 3
REMARK 3 DATA USED IN REFINEMENT.
REMARK 3 RESOLUTION RANGE HIGH (ANGSTROMS) : 2.80
REMARK 3 RESOLUTION RANGE LOW (ANGSTROMS) : 40.00
REMARK 3 DATA CUTOFF (SIGMA(F)) : NONE
REMARK 3 COMPLETENESS FOR RANGE (%) : 99.91
REMARK 3 NUMBER OF REFLECTIONS : 25718
REMARK 3
REMARK 3 FIT TO DATA USED IN REFINEMENT. •
REMARK 3 CROSS-VALIDATION METHOD : THROUGHOUT
REMARK 3 FREE R VALUE TEST SET SELECTION : RANDOM
REMARK 3 R VALUE (WORKING + TEST SET) : 0.19861
REMARK 3 R VALUE (WORKING SET) : 0.19526
REMARK 3 FREE R VALUE : 0.26170
REMARK 3 FREE R VALUE TEST SET SIZE (%) : 5.1
REMARK 3 FREE R VALUE TEST SET COUNT : 1381
REMARK 3
REMARK 3 FIT IN THE HIGHEST RESOLUTION BIN.
REMARK 3 TOTAL NUMBER OF BINS USED : 20
REMARK 3 BIN RESOLUTION RANGE HIGH : 2.800

194

REMARK 3 BIN RESOLUTION RANGE LOW : 2.872
REMARK 3 REFLECTION IN BIN (WORKING SET): 1831
REMARK 3 BIN R VALUE (WORKING SET): 0.279
REMARK 3 BIN FREE R VALUE SET COUNT : 100
REMARK 3 BIN FREE R VALUE : 0.348
REMARK 3
REMARK 3 NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.
REMARK 3 ALL ATOMS : 7782
REMARK 3
REMARK 3 B VALUES.
REMARK 3 FROM WILSON PLOT (A**2): NULL
REMARK 3 MEAN B VALUE (OVERALL, A**2): 24.302
REMARK 3 OVERALL ANISOTROPIC B VALUE.
REMARK 3 B11 (A**2): 0.01
REMARK 3 B22 (A**2): 1.29
REMARK 3 B33 (A**2): -1.30
REMARK 3 B12 (A**2): 0.00
REMARK 3 B13 (A**2): 0.00
REMARK 3 B23 (A**2): 0.00
REMARK 3
REMARK 3 ESTIMATED OVERALL COORDINATE ERROR.
REMARK 3 ESU BASED ON R VALUE (A): NULL
REMARK 3 ESU BASED ON FREE R VALUE (A): 0.410
REMARK 3 ESU BASED ON MAXIMUM LIKELIHOOD (A): 0.305
REMARK 3 ESU FOR B VALUES BASED ON MAXIMUM LIKELIHOOD (A**2):
15.914
REMARK 3
REMARK 3 CORRELATION COEFFICIENTS.
REMARK 3 CORRELATION COEFFICIENT FO-FC : 0.935
REMARK 3 CORRELATION COEFFICIENT FO-FC FREE : 0.892
REMARK 3
REMARK 3 RMS DEVIATIONS FROM IDEAL VALUES COUNT RMS
WEIGHT
REMARK 3 BOND LENGTHS REFINED ATOMS (A): 7745 ; 0.016 ; 0.022
REMARK 3 BOND LENGTHS OTHERS (A): 7177 ; 0.002 ; 0.020
REMARK 3 BOND ANGLES REFINED ATOMS (DEGREES): 10502 ; 1.490 ; 1.980
REMARK 3 BOND ANGLES OTHERS (DEGREES): 16631 ; 0.842 ; 3.000
REMARK 3 TORSION ANGLES, PERIOD 1 (DEGREES): 908 ; 5.804 ; 5.000
REMARK 3 CHIRAL-CENTER RESTRAINTS (A**3): 1189 ; 0.074 ; 0.200
REMARK 3 GENERAL PLANES REFINED ATOMS (A): 8385 ; 0.005 ; 0.020
REMARK 3 GENERAL PLANES OTHERS (A): 1612 ; 0.002 ; 0.020
REMARK 3 NON-BONDED CONTACTS REFINED ATOMS (A): 1833 ; 0.215 ;
0.200
REMARK 3 NON-BONDED CONTACTS OTHERS (A): 8222 ; 0.224 ; 0.200
REMARK 3 NON-BONDED TORSION OTHERS (A): 4710 ; 0.088 ; 0.200
REMARK 3 H-BOND (X...Y) REFINED ATOMS (A): 208 ; 0.180 ; 0.200
REMARK 3 SYMMETRY VDW REFINED ATOMS (A): 20 ; 0.205 ; 0.200
REMARK 3 SYMMETRY VDW OTHERS (A): 81 ; 0.243 ; 0.200

195

REMARK 3 SYMMETRY H-BOND REFINED ATOMS (A): 11 ; 0.126 ; 0.200
 REMARK 3
 REMARK 3 ISOTROPIC THERMAL FACTOR RESTRAINTS. COUNT RMS
 WEIGHT
 REMARK 3 MAIN-CHAIN BOND REFINED ATOMS (A**2): 4613 ; 0.581 ; 1.500
 REMARK 3 MAIN-CHAIN ANGLE REFINED ATOMS (A**2): 7458 ; 1.145 ; 2.000
 REMARK 3 SIDE-CHAIN BOND REFINED ATOMS (A**2): 3132 ; 1.659 ; 3.000
 REMARK 3 SIDE-CHAIN ANGLE REFINED ATOMS (A**2): 3044 ; 3.050 ; 4.500
 REMARK 3
 REMARK 3 NCS RESTRAINTS STATISTICS
 REMARK 3 NUMBER OF NCS GROUPS : NULL
 REMARK 3
 REMARK 3
 REMARK 3 TLS DETAILS
 REMARK 3 NUMBER OF TLS GROUPS : NULL
 REMARK 3
 REMARK 3
 REMARK 3 BULK SOLVENT MODELLING.
 REMARK 3 METHOD USED : BABINET MODEL WITH MASK
 REMARK 3 PARAMETERS FOR MASK CALCULATION
 REMARK 3 VDW PROBE RADIUS : 1.40
 REMARK 3 ION PROBE RADIUS : 0.80
 REMARK 3 SHRINKAGE RADIUS : 0.80
 REMARK 3
 REMARK 3 OTHER REFINEMENT REMARKS:
 REMARK 3 HYDROGENS HAVE BEEN ADDED IN THE RIDING POSITIONS
 REMARK 3
 LINK PRO A 253 ALA A 261 gap
 LINK PRO B 258 ALA B 261 gap
 LINK PHE C 243 LYS C 248 gap
 LINK ALA C 254 GLN C 259 gap
 LINK SER D 242 VAL D 249 gap
 LINK TRP D 252 ALA D 260 gap
 LINK ALA D 329 PHE D 333 gap
 LINK ARG D 443 LYS D 448 gap
 CRYST1 58.722 103.262 176.002 90.00 90.00 90.00 P 21 21 21
 SCALE1 0.017029 0.000000 0.000000 0.000000
 SCALE2 0.000000 0.009684 0.000000 0.000000
 SCALE3 0.000000 0.000000 0.005682 0.000000
 ATOM 1 N LEU A 220 5.857 8.165 59.175 1.00 15.68 N
 ATOM 3 CA LEU A 220 4.611 8.973 59.427 1.00 17.29 C
 ATOM 5 CB LEU A 220 3.715 9.000 58.174 1.00 17.72 C
 ATOM 8 CG LEU A 220 3.555 10.232 57.242 1.00 20.46 C
 ATOM 10 CD1 LEU A 220 2.059 10.393 56.770 1.00 21.48 C
 ATOM 14 CD2 LEU A 220 4.105 11.593 57.820 1.00 21.78 C
 ATOM 18 C LEU A 220 3.778 8.419 60.590 1.00 16.81 C
 ATOM 19 O LEU A 220 3.383 7.253 60.556 1.00 16.85 O
 ATOM 22 N THR A 221 3.473 9.239 61.599 1.00 16.32 N

196

ATOM	24	CA	THR A 221	2.793	8.735	62.803	1.00	15.78	C
ATOM	26	CB	THR A 221	3.025	9.631	64.051	1.00	15.47	C
ATOM	28	OG1	THR A 221	2.506	10.944	63.837	1.00	15.57	O
ATOM	30	CG2	THR A 221	4.477	9.849	64.317	1.00	15.58	C
ATOM	34	C	THR A 221	1.310	8.607	62.597	1.00	15.91	C
ATOM	35	O	THR A 221	0.751	9.250	61.717	1.00	16.20	O
ATOM	36	N	ALA A 222	0.669	7.802	63.447	1.00	16.12	N
ATOM	38	CA	ALA A 222	-0.792	7.607	63.422	1.00	15.82	C
ATOM	40	CB	ALA A 222	-1.269	6.776	64.623	1.00	15.57	C
ATOM	44	C	ALA A 222	-1.487	8.948	63.416	1.00	15.68	C
ATOM	45	O	ALA A 222	-2.431	9.165	62.664	1.00	16.24	O
ATOM	46	N	ALA A 223	-1.010	9.854	64.251	1.00	15.26	N
ATOM	48	CA	ALA A 223	-1.606	11.168	64.343	1.00	15.26	C
ATOM	50	CB	ALA A 223	-1.026	11.901	65.538	1.00	15.52	C
ATOM	54	C	ALA A 223	-1.397	11.968	63.046	1.00	15.37	C
ATOM	55	O	ALA A 223	-2.247	12.750	62.660	1.00	14.83	O
ATOM	56	N	GLN A 224	-0.264	11.767	62.381	1.00	15.80	N
ATOM	58	CA	GLN A 224	-0.005	12.423	61.108	1.00	16.16	C
ATOM	60	CB	GLN A 224	1.479	12.350	60.734	1.00	16.24	C
ATOM	63	CG	GLN A 224	2.383	13.329	61.487	1.00	15.36	C
ATOM	66	CD	GLN A 224	3.857	13.076	61.233	1.00	13.69	C
ATOM	67	OE1	GLN A 224	4.276	11.933	61.080	1.00	11.58	O
ATOM	68	NE2	GLN A 224	4.642	14.144	61.171	1.00	12.35	N
ATOM	71	C	GLN A 224	-0.856	11.847	59.987	1.00	16.83	C
ATOM	72	O	GLN A 224	-1.344	12.586	59.155	1.00	17.50	O
ATOM	73	N	GLU A 225	-1.044	10.541	59.944	1.00	17.54	N
ATOM	75	CA	GLU A 225	-1.918	9.962	58.938	1.00	18.71	C
ATOM	77	CB	GLU A 225	-1.919	8.421	58.996	1.00	19.80	C
ATOM	80	CG	GLU A 225	-0.583	7.718	58.708	1.00	22.22	C
ATOM	83	CD	GLU A 225	-0.739	6.189	58.646	1.00	27.82	C
ATOM	84	OE1	GLU A 225	-1.896	5.694	58.806	1.00	29.83	O
ATOM	85	OE2	GLU A 225	0.279	5.463	58.427	1.00	29.75	O
ATOM	86	C	GLU A 225	-3.326	10.487	59.160	1.00	18.57	C
ATOM	87	O	GLU A 225	-3.972	10.912	58.236	1.00	18.55	O
ATOM	88	N	LEU A 226	-3.788	10.489	60.401	1.00	19.06	N
ATOM	90	CA	LEU A 226	-5.087	11.076	60.747	1.00	19.53	C
ATOM	92	CB	LEU A 226	-5.351	11.028	62.260	1.00	19.76	C
ATOM	95	CG	LEU A 226	-6.612	11.759	62.761	1.00	19.44	C
ATOM	97	CD1	LEU A 226	-7.866	11.109	62.149	1.00	20.78	C
ATOM	101	CD2	LEU A 226	-6.676	11.739	64.269	1.00	18.94	C
ATOM	105	C	LEU A 226	-5.283	12.516	60.326	1.00	19.84	C
ATOM	106	O	LEU A 226	-6.391	12.892	59.964	1.00	20.69	O
ATOM	107	N	MET A 227	-4.260	13.348	60.435	1.00	20.12	N
ATOM	109	CA	MET A 227	-4.448	14.759	60.126	1.00	20.67	C
ATOM	111	CB	MET A 227	-3.305	15.603	60.675	1.00	21.19	C
ATOM	114	CG	MET A 227	-2.751	16.682	59.708	1.00	23.98	C
ATOM	117	SD	MET A 227	-1.252	17.480	60.399	1.00	30.33	S
ATOM	118	CE	MET A 227	-1.757	17.793	62.100	1.00	29.41	C

197

ATOM	122	C	MET A 227	-4.578	14.927	58.616	1.00	20.11	C
ATOM	123	O	MET A 227	-5.464	15.629	58.148	1.00	20.30	O
ATOM	124	N	ILE A 228	-3.705	14.257	57.878	1.00	19.29	N
ATOM	126	CA	ILE A 228	-3.665	14.351	56.445	1.00	19.09	C
ATOM	128	CB	ILE A 228	-2.382	13.726	55.921	1.00	19.07	C
ATOM	130	CG1	ILE A 228	-1.179	14.615	56.251	1.00	19.28	C
ATOM	133	CD1	ILE A 228	0.158	13.963	55.932	1.00	19.23	C
ATOM	137	CG2	ILE A 228	-2.494	13.479	54.411	1.00	19.58	C
ATOM	141	C	ILE A 228	-4.863	13.670	55.794	1.00	19.43	C
ATOM	142	O	ILE A 228	-5.418	14.211	54.868	1.00	20.34	O
ATOM	143	N	GLN A 229	-5.256	12.477	56.223	1.00	18.90	N
ATOM	145	CA	GLN A 229	-6.478	11.882	55.706	1.00	18.96	C
ATOM	147	CB	GLN A 229	-6.771	10.577	56.413	1.00	19.24	C
ATOM	150	CG	GLN A 229	-6.067	9.435	55.768	1.00	21.27	C
ATOM	153	CD	GLN A 229	-6.010	8.229	56.651	1.00	24.10	C
ATOM	154	OE1	GLN A 229	-6.948	7.971	57.423	1.00	25.47	O
ATOM	155	NE2	GLN A 229	-4.905	7.479	56.560	1.00	25.45	N
ATOM	158	C	GLN A 229	-7.702	12.769	55.845	1.00	18.55	C
ATOM	159	O	GLN A 229	-8.583	12.732	55.011	1.00	18.22	O
ATOM	160	N	GLN A 230	-7.744	13.532	56.930	1.00	18.60	N
ATOM	162	CA	GLN A 230	-8.860	14.389	57.301	1.00	18.80	C
ATOM	164	CB	GLN A 230	-8.659	14.919	58.749	1.00	19.79	C
ATOM	167	CG	GLN A 230	-9.251	16.327	59.108	1.00	21.29	C
ATOM	170	CD	GLN A 230	-10.690	16.230	59.571	1.00	24.64	C
ATOM	171	OE1	GLN A 230	-11.138	15.164	59.996	1.00	25.60	O
ATOM	172	NE2	GLN A 230	-11.427	17.336	59.477	1.00	28.35	N
ATOM	175	C	GLN A 230	-8.945	15.538	56.342	1.00	18.30	C
ATOM	176	O	GLN A 230	-10.029	15.844	55.865	1.00	18.40	O
ATOM	177	N	LEU A 231	-7.800	16.196	56.106	1.00	17.65	N
ATOM	179	CA	LEU A 231	-7.691	17.326	55.185	1.00	17.02	C
ATOM	181	CB	LEU A 231	-6.276	17.900	55.178	1.00	17.01	C
ATOM	184	CG	LEU A 231	-5.827	18.554	56.489	1.00	17.61	C
ATOM	186	CD1	LEU A 231	-4.435	19.164	56.398	1.00	17.30	C
ATOM	190	CD2	LEU A 231	-6.815	19.591	56.908	1.00	18.68	C
ATOM	194	C	LEU A 231	-8.079	16.910	53.787	1.00	16.54	C
ATOM	195	O	LEU A 231	-8.848	17.571	53.144	1.00	16.65	O
ATOM	196	N	VAL A 232	-7.589	15.776	53.337	1.00	16.28	N
ATOM	198	CA	VAL A 232	-7.975	15.264	52.034	1.00	16.26	C
ATOM	200	CB	VAL A 232	-7.091	14.080	51.598	1.00	16.22	C
ATOM	202	CG1	VAL A 232	-7.585	13.491	50.281	1.00	15.39	C
ATOM	206	CG2	VAL A 232	-5.639	14.571	51.447	1.00	16.49	C
ATOM	210	C	VAL A 232	-9.463	14.925	51.955	1.00	15.99	C
ATOM	211	O	VAL A 232	-10.106	15.228	50.942	1.00	15.95	O
ATOM	212	N	ALA A 233	-10.010	14.319	53.006	1.00	15.67	N
ATOM	214	CA	ALA A 233	-11.416	13.939	53.011	1.00	15.76	C
ATOM	216	CB	ALA A 233	-11.722	13.041	54.167	1.00	15.74	C
ATOM	220	C	ALA A 233	-12.328	15.169	53.046	1.00	16.33	C
ATOM	221	O	ALA A 233	-13.417	15.150	52.468	1.00	15.95	O

198

ATOM	222	N	ALA A 234	-11.893	16.231	53.720	1.00	16.96	N
ATOM	224	CA	ALA A 234	-12.667	17.465	53.756	1.00	17.94	C
ATOM	226	CB	ALA A 234	-12.205	18.373	54.910	1.00	18.20	C
ATOM	230	C	ALA A 234	-12.598	18.207	52.407	1.00	18.44	C
ATOM	231	O	ALA A 234	-13.595	18.714	51.965	1.00	18.63	O
ATOM	232	N	GLN A 235	-11.438	18.261	51.762	1.00	19.00	N
ATOM	234	CA	GLN A 235	-11.303	18.837	50.425	1.00	20.04	C
ATOM	236	CB	GLN A 235	-9.856	18.674	49.997	1.00	20.79	C
ATOM	239	CG	GLN A 235	-9.379	19.327	48.715	1.00	24.06	C
ATOM	242	CD	GLN A 235	-7.796	19.466	48.697	1.00	30.93	C
ATOM	243	OE1	GLN A 235	-7.021	18.452	48.747	1.00	31.11	O
ATOM	244	NE2	GLN A 235	-7.336	20.724	48.634	1.00	34.09	N
ATOM	247	C	GLN A 235	-12.213	18.115	49.435	1.00	19.95	C
ATOM	248	O	GLN A 235	-12.927	18.720	48.655	1.00	19.27	O
ATOM	249	N	LEU A 236	-12.199	16.800	49.490	1.00	20.56	N
ATOM	251	CA	LEU A 236	-13.036	16.017	48.616	1.00	21.32	C
ATOM	253	CB	LEU A 236	-12.757	14.522	48.786	1.00	21.67	C
ATOM	256	CG	LEU A 236	-13.341	13.700	47.626	1.00	24.13	C
ATOM	258	CD1	LEU A 236	-12.335	13.718	46.450	1.00	25.57	C
ATOM	262	CD2	LEU A 236	-13.777	12.237	48.015	1.00	25.18	C
ATOM	266	C	LEU A 236	-14.518	16.309	48.845	1.00	21.68	C
ATOM	267	O	LEU A 236	-15.252	16.390	47.872	1.00	22.07	O
ATOM	268	N	GLN A 237	-14.958	16.451	50.105	1.00	21.96	N
ATOM	270	CA	GLN A 237	-16.373	16.687	50.431	1.00	22.24	C
ATOM	272	CB	GLN A 237	-16.683	16.470	51.923	1.00	22.91	C
ATOM	275	CG	GLN A 237	-16.664	14.997	52.379	1.00	26.71	C
ATOM	278	CD	GLN A 237	-16.470	14.773	53.913	1.00	30.99	C
ATOM	279	OE1	GLN A 237	-16.674	13.640	54.381	1.00	33.33	O
ATOM	280	NE2	GLN A 237	-16.075	15.829	54.678	1.00	31.61	N
ATOM	283	C	GLN A 237	-16.746	18.097	50.095	1.00	21.57	C
ATOM	284	O	GLN A 237	-17.875	18.381	49.779	1.00	21.64	O
ATOM	285	N	CYS A 238	-15.803	19.001	50.189	1.00	21.37	N
ATOM	287	CA	CYS A 238	-16.106	20.382	49.933	1.00	21.90	C
ATOM	289	CB	CYS A 238	-14.933	21.268	50.319	1.00	22.20	C
ATOM	292	SG	CYS A 238	-15.030	21.765	52.027	1.00	21.86	S
ATOM	293	C	CYS A 238	-16.385	20.508	48.468	1.00	22.29	C
ATOM	294	O	CYS A 238	-17.288	21.221	48.050	1.00	21.90	O
ATOM	295	N	ASN A 239	-15.590	19.792	47.691	1.00	22.98	N
ATOM	297	CA	ASN A 239	-15.691	19.869	46.261	1.00	23.73	C
ATOM	299	CB	ASN A 239	-14.463	19.232	45.582	1.00	24.05	C
ATOM	302	CG	ASN A 239	-14.287	19.708	44.128	1.00	25.70	C
ATOM	303	OD1	ASN A 239	-14.637	18.983	43.188	1.00	27.70	O
ATOM	304	ND2	ASN A 239	-13.789	20.943	43.945	1.00	27.04	N
ATOM	307	C	ASN A 239	-17.009	19.263	45.802	1.00	23.69	C
ATOM	308	O	ASN A 239	-17.703	19.853	44.986	1.00	24.39	O
ATOM	309	N	LYS A 240	-17.364	18.107	46.354	1.00	23.59	N
ATOM	311	CA	LYS A 240	-18.609	17.421	46.030	1.00	23.52	C
ATOM	313	CB	LYS A 240	-18.719	16.127	46.843	1.00	23.44	C

ATOM	316	CG	LYS A 240	-19.950	15.300	46.541	1.00	24.05	C
ATOM	319	CD	LYS A 240	-19.746	13.876	46.958	1.00	25.71	C
ATOM	322	CE	LYS A 240	-20.932	13.010	46.622	1.00	26.90	C
ATOM	325	NZ	LYS A 240	-21.540	12.446	47.847	1.00	27.75	N
ATOM	329	C	LYS A 240	-19.799	18.308	46.338	1.00	23.67	C
ATOM	330	O	LYS A 240	-20.731	18.394	45.562	1.00	23.66	O
ATOM	331	N	ARG A 241	-19.740	18.962	47.490	1.00	24.06	N
ATOM	333	CA	ARG A 241	-20.796	19.842	47.995	1.00	24.47	C
ATOM	335	CB	ARG A 241	-20.450	20.278	49.431	1.00	24.96	C
ATOM	338	CG	ARG A 241	-21.613	20.328	50.388	1.00	25.97	C
ATOM	341	CD	ARG A 241	-21.267	20.916	51.747	1.00	27.73	C
ATOM	344	NE	ARG A 241	-22.165	22.017	52.101	1.00	28.90	N
ATOM	346	CZ	ARG A 241	-23.486	21.893	52.299	1.00	30.39	C
ATOM	347	NH1	ARG A 241	-24.108	20.712	52.181	1.00	29.33	N
ATOM	350	NH2	ARG A 241	-24.200	22.966	52.626	1.00	32.01	N
ATOM	353	C	ARG A 241	-20.977	21.097	47.158	1.00	24.33	C
ATOM	354	O	ARG A 241	-22.088	21.443	46.784	1.00	23.85	O
ATOM	355	N	SER A 242	-19.870	21.774	46.881	1.00	24.71	N
ATOM	357	CA	SER A 242	-19.893	23.054	46.200	1.00	25.36	C
ATOM	359	CB	SER A 242	-18.654	23.864	46.556	1.00	25.33	C
ATOM	362	OG	SER A 242	-18.673	24.276	47.912	1.00	26.26	O
ATOM	364	C	SER A 242	-19.996	22.949	44.688	1.00	26.01	C
ATOM	365	O	SER A 242	-20.468	23.892	44.059	1.00	26.36	O
ATOM	366	N	PHE A 243	-19.577	21.818	44.109	1.00	26.84	N
ATOM	368	CA	PHE A 243	-19.363	21.702	42.654	1.00	27.40	C
ATOM	370	CB	PHE A 243	-17.893	21.962	42.281	1.00	27.57	C
ATOM	373	CG	PHE A 243	-17.476	23.401	42.388	1.00	28.48	C
ATOM	374	CD1	PHE A 243	-16.406	23.768	43.192	1.00	30.26	C
ATOM	376	CE1	PHE A 243	-16.017	25.108	43.293	1.00	31.11	C
ATOM	378	CZ	PHE A 243	-16.693	26.079	42.573	1.00	32.32	C
ATOM	380	CE2	PHE A 243	-17.761	25.717	41.751	1.00	30.72	C
ATOM	382	CD2	PHE A 243	-18.138	24.386	41.669	1.00	30.00	C
ATOM	384	C	PHE A 243	-19.744	20.350	42.078	1.00	27.70	C
ATOM	385	O	PHE A 243	-19.065	19.865	41.173	1.00	28.04	O
ATOM	386	N	SER A 244	-20.810	19.740	42.593	1.00	27.94	N
ATOM	388	CA	SER A 244	-21.388	18.561	41.956	1.00	27.89	C
ATOM	390	CB	SER A 244	-22.038	17.617	42.969	1.00	27.93	C
ATOM	393	OG	SER A 244	-21.132	16.641	43.439	1.00	27.71	O
ATOM	395	C	SER A 244	-22.440	19.069	41.004	1.00	28.11	C
ATOM	396	O	SER A 244	-22.398	18.799	39.810	1.00	28.08	O
ATOM	397	N	ASP A 245	-23.390	19.814	41.554	1.00	28.48	N
ATOM	399	CA	ASP A 245	-24.489	20.374	40.772	1.00	28.58	C
ATOM	401	CB	ASP A 245	-25.670	20.703	41.695	1.00	28.69	C
ATOM	404	CG	ASP A 245	-26.367	19.446	42.218	1.00	29.20	C
ATOM	405	OD1	ASP A 245	-27.256	18.917	41.510	1.00	29.63	O
ATOM	406	OD2	ASP A 245	-26.089	18.909	43.312	1.00	29.52	O
ATOM	407	C	ASP A 245	-24.038	21.605	39.973	1.00	28.43	C
ATOM	408	O	ASP A 245	-22.985	22.187	40.235	1.00	28.14	O

200

ATOM	409	N	GLN A 246	-24.833	21.973	38.976	1.00	28.73	N
ATOM	411	CA	GLN A 246	-24.511	23.105	38.107	1.00	28.73	C
ATOM	413	CB	GLN A 246	-25.515	23.249	36.951	1.00	28.69	C
ATOM	416	CG	GLN A 246	-25.610	22.033	36.023	1.00	28.33	C
ATOM	419	CD	GLN A 246	-24.579	22.068	34.924	1.00	27.89	C
ATOM	420	OE1	GLN A 246	-24.870	22.489	33.813	1.00	28.50	O
ATOM	421	NE2	GLN A 246	-23.371	21.640	35.231	1.00	27.73	N
ATOM	424	C	GLN A 246	-24.553	24.338	38.970	1.00	28.78	C
ATOM	425	O	GLN A 246	-25.427	24.478	39.811	1.00	28.84	O
ATOM	426	N	PRO A 247	-23.599	25.231	38.798	1.00	29.14	N
ATOM	427	CA	PRO A 247	-23.559	26.416	39.647	1.00	29.46	C
ATOM	429	CB	PRO A 247	-22.168	27.006	39.357	1.00	29.77	C
ATOM	432	CG	PRO A 247	-21.788	26.494	37.996	1.00	29.30	C
ATOM	435	CD	PRO A 247	-22.499	25.198	37.818	1.00	29.08	C
ATOM	438	C	PRO A 247	-24.706	27.351	39.273	1.00	29.76	C
ATOM	439	O	PRO A 247	-25.155	27.321	38.121	1.00	30.08	O
ATOM	440	N	LYS A 248	-25.215	28.119	40.234	1.00	30.00	N
ATOM	442	CA	LYS A 248	-26.221	29.139	39.937	1.00	30.26	C
ATOM	444	CB	LYS A 248	-27.101	29.417	41.162	1.00	30.54	C
ATOM	447	CG	LYS A 248	-27.941	28.210	41.639	1.00	31.56	C
ATOM	450	CD	LYS A 248	-29.123	28.610	42.571	1.00	32.74	C
ATOM	453	CE	LYS A 248	-30.244	27.556	42.530	1.00	33.52	C
ATOM	456	NZ	LYS A 248	-31.375	27.849	43.451	1.00	33.69	N
ATOM	460	C	LYS A 248	-25.450	30.386	39.495	1.00	30.08	C
ATOM	461	O	LYS A 248	-24.799	31.051	40.310	1.00	30.32	O
ATOM	462	N	VAL A 249	-25.448	30.660	38.193	1.00	29.61	N
ATOM	464	CA	VAL A 249	-24.593	31.712	37.651	1.00	29.25	C
ATOM	466	CB	VAL A 249	-23.202	31.196	37.179	1.00	29.50	C
ATOM	468	CG1	VAL A 249	-22.100	32.141	37.639	1.00	30.10	C
ATOM	472	CG2	VAL A 249	-22.892	29.825	37.697	1.00	29.90	C
ATOM	476	C	VAL A 249	-25.223	32.380	36.464	1.00	28.77	C
ATOM	477	O	VAL A 249	-25.831	31.723	35.622	1.00	29.22	O
ATOM	478	N	THR A 250	-25.075	33.699	36.407	1.00	28.20	N
ATOM	480	CA	THR A 250	-25.410	34.463	35.222	1.00	27.53	C
ATOM	482	CB	THR A 250	-24.740	35.840	35.274	1.00	27.36	C
ATOM	484	OG1	THR A 250	-25.260	36.595	36.371	1.00	26.90	O
ATOM	486	CG2	THR A 250	-25.106	36.681	34.074	1.00	27.81	C
ATOM	490	C	THR A 250	-24.870	33.663	34.057	1.00	27.36	C
ATOM	491	O	THR A 250	-23.683	33.365	34.035	1.00	26.84	O
ATOM	492	N	PRO A 251	-25.737	33.270	33.121	1.00	27.46	N
ATOM	493	CA	PRO A 251	-25.312	32.536	31.920	1.00	27.22	C
ATOM	495	CB	PRO A 251	-26.579	32.520	31.054	1.00	27.39	C
ATOM	498	CG	PRO A 251	-27.719	32.783	31.974	1.00	27.38	C
ATOM	501	CD	PRO A 251	-27.194	33.507	33.148	1.00	27.33	C
ATOM	504	C	PRO A 251	-24.175	33.238	31.155	1.00	27.16	C
ATOM	505	O	PRO A 251	-24.321	34.425	30.816	1.00	26.96	O
ATOM	506	N	TRP A 252	-23.076	32.518	30.892	1.00	27.01	N
ATOM	508	CA	TRP A 252	-21.942	33.047	30.113	1.00	26.96	C

201

ATOM	510	CB	TRP A 252	-20.742	32.086	30.209	1.00	27.01	C
ATOM	513	CG	TRP A 252	-19.466	32.589	29.544	1.00	27.07	C
ATOM	514	CD1	TRP A 252	-19.056	32.336	28.274	1.00	27.45	C
ATOM	516	NE1	TRP A 252	-17.856	32.956	28.023	1.00	27.64	N
ATOM	518	CE2	TRP A 252	-17.464	33.628	29.147	1.00	27.28	C
ATOM	519	CD2	TRP A 252	-18.451	33.412	30.128	1.00	27.12	C
ATOM	520	CE3	TRP A 252	-18.274	33.994	31.386	1.00	26.88	C
ATOM	522	CZ3	TRP A 252	-17.149	34.752	31.625	1.00	26.34	C
ATOM	524	CH2	TRP A 252	-16.190	34.951	30.630	1.00	27.03	C
ATOM	526	CZ2	TRP A 252	-16.328	34.397	29.383	1.00	27.06	C
ATOM	528	C	TRP A 252	-22.364	33.291	28.641	1.00	27.00	C
ATOM	529	O	TRP A 252	-22.650	32.340	27.914	1.00	26.88	O
ATOM	530	N	PRO A 253	-22.413	34.552	28.207	1.00	27.02	N
ATOM	531	CA	PRO A 253	-23.075	34.923	26.944	1.00	27.13	C
ATOM	533	CB	PRO A 253	-22.633	36.369	26.740	1.00	26.99	C
ATOM	536	CG	PRO A 253	-22.425	36.862	28.122	1.00	27.20	C
ATOM	539	CD	PRO A 253	-21.846	35.730	28.887	1.00	26.96	C
ATOM	542	C	PRO A 253	-22.783	34.037	25.707	1.00	27.29	C
ATOM	543	O	PRO A 253	-21.842	34.201	24.927	1.00	27.33	O
ATOM	544	N	ALA A 261	-21.033	46.340	25.423	1.00	34.78	N
ATOM	546	CA	ALA A 261	-21.278	46.695	26.824	1.00	34.81	C
ATOM	548	CB	ALA A 261	-21.883	48.098	26.916	1.00	34.71	C
ATOM	552	C	ALA A 261	-22.192	45.678	27.518	1.00	34.78	C
ATOM	553	O	ALA A 261	-22.029	45.385	28.711	1.00	34.60	O
ATOM	554	N	ASP A 262	-23.157	45.159	26.758	1.00	34.77	N
ATOM	556	CA	ASP A 262	-24.179	44.243	27.275	1.00	34.61	C
ATOM	558	CB	ASP A 262	-24.954	43.597	26.105	1.00	34.57	C
ATOM	561	CG	ASP A 262	-25.879	44.587	25.373	1.00	34.47	C
ATOM	562	OD1	ASP A 262	-25.775	45.805	25.617	1.00	34.39	O
ATOM	563	OD2	ASP A 262	-26.744	44.240	24.536	1.00	33.23	O
ATOM	564	C	ASP A 262	-23.557	43.156	28.157	1.00	34.44	C
ATOM	565	O	ASP A 262	-23.923	43.001	29.321	1.00	34.35	O
ATOM	566	N	ALA A 263	-22.580	42.450	27.588	1.00	34.23	N
ATOM	568	CA	ALA A 263	-21.996	41.235	28.170	1.00	33.99	C
ATOM	570	CB	ALA A 263	-21.838	40.178	27.079	1.00	34.09	C
ATOM	574	C	ALA A 263	-20.650	41.464	28.862	1.00	33.70	C
ATOM	575	O	ALA A 263	-19.984	40.498	29.269	1.00	33.64	O
ATOM	576	N	ARG A 264	-20.243	42.737	28.941	1.00	33.29	N
ATOM	578	CA	ARG A 264	-19.097	43.178	29.743	1.00	32.67	C
ATOM	580	CB	ARG A 264	-18.804	44.674	29.510	1.00	32.96	C
ATOM	583	CG	ARG A 264	-17.716	44.953	28.482	1.00	34.81	C
ATOM	586	CD	ARG A 264	-16.292	44.666	29.000	1.00	37.32	C
ATOM	589	NE	ARG A 264	-15.342	44.361	27.918	1.00	39.57	N
ATOM	591	CZ	ARG A 264	-14.061	44.011	28.100	1.00	40.37	C
ATOM	592	NH1	ARG A 264	-13.558	43.920	29.324	1.00	41.07	N
ATOM	595	NH2	ARG A 264	-13.278	43.754	27.055	1.00	40.24	N
ATOM	598	C	ARG A 264	-19.434	42.929	31.210	1.00	31.60	C
ATOM	599	O	ARG A 264	-18.705	42.225	31.911	1.00	31.31	O

202

ATOM	600	N	GLN A 265	-20.561	43.501	31.648	1.00	30.27	N
ATOM	602	CA	GLN A 265	-21.079	43.287	32.999	1.00	29.10	C
ATOM	604	CB	GLN A 265	-22.249	44.239	33.319	1.00	28.98	C
ATOM	607	CG	GLN A 265	-21.818	45.574	33.976	1.00	29.73	C
ATOM	610	CD	GLN A 265	-22.270	46.818	33.191	1.00	30.32	C
ATOM	611	OE1	GLN A 265	-22.950	47.694	33.738	1.00	30.04	O
ATOM	612	NE2	GLN A 265	-21.885	46.895	31.917	1.00	30.05	N
ATOM	615	C	GLN A 265	-21.499	41.839	33.219	1.00	27.75	C
ATOM	616	O	GLN A 265	-21.334	41.328	34.314	1.00	27.82	O
ATOM	617	N	GLN A 266	-22.022	41.181	32.187	1.00	26.21	N
ATOM	619	CA	GLN A 266	-22.527	39.808	32.321	1.00	24.92	C
ATOM	621	CB	GLN A 266	-23.344	39.381	31.094	1.00	24.75	C
ATOM	624	CG	GLN A 266	-24.787	38.953	31.377	1.00	24.16	C
ATOM	627	CD	GLN A 266	-25.723	39.314	30.227	1.00	23.84	C
ATOM	628	OE1	GLN A 266	-26.764	39.936	30.434	1.00	23.51	O
ATOM	629	NE2	GLN A 266	-25.338	38.943	29.011	1.00	23.56	N
ATOM	632	C	GLN A 266	-21.408	38.795	32.554	1.00	24.04	C
ATOM	633	O	GLN A 266	-21.592	37.849	33.317	1.00	23.90	O
ATOM	634	N	ARG A 267	-20.260	38.978	31.902	1.00	22.85	N
ATOM	636	CA	ARG A 267	-19.143	38.031	32.058	1.00	21.84	C
ATOM	638	CB	ARG A 267	-18.154	38.137	30.883	1.00	21.71	C
ATOM	641	CG	ARG A 267	-18.580	37.268	29.730	1.00	22.50	C
ATOM	644	CD	ARG A 267	-17.832	37.435	28.429	1.00	23.45	C
ATOM	647	NE	ARG A 267	-18.674	36.954	27.323	1.00	24.84	N
ATOM	649	CZ	ARG A 267	-18.259	36.692	26.082	1.00	24.64	C
ATOM	650	NH1	ARG A 267	-16.991	36.857	25.733	1.00	25.31	N
ATOM	653	NH2	ARG A 267	-19.126	36.262	25.180	1.00	23.40	N
ATOM	656	C	ARG A 267	-18.457	38.232	33.414	1.00	20.83	C
ATOM	657	O	ARG A 267	-18.025	37.274	34.054	1.00	20.47	O
ATOM	658	N	PHE A 268	-18.387	39.496	33.831	1.00	19.89	N
ATOM	660	CA	PHE A 268	-17.848	39.907	35.117	1.00	19.08	C
ATOM	662	CB	PHE A 268	-17.861	41.432	35.225	1.00	18.83	C
ATOM	665	CG	PHE A 268	-17.385	41.950	36.546	1.00	17.99	C
ATOM	666	CD1	PHE A 268	-16.099	41.692	36.977	1.00	16.96	C
ATOM	668	CE1	PHE A 268	-15.656	42.174	38.208	1.00	17.27	C
ATOM	670	CZ	PHE A 268	-16.507	42.916	39.016	1.00	16.82	C
ATOM	672	CE2	PHE A 268	-17.794	43.173	38.594	1.00	16.87	C
ATOM	674	CD2	PHE A 268	-18.226	42.700	37.361	1.00	17.26	C
ATOM	676	C	PHE A 268	-18.686	39.310	36.236	1.00	18.75	C
ATOM	677	O	PHE A 268	-18.159	38.688	37.151	1.00	18.48	O
ATOM	678	N	ALA A 269	-19.995	39.514	36.140	1.00	18.26	N
ATOM	680	CA	ALA A 269	-20.941	39.054	37.143	1.00	17.83	C
ATOM	682	CB	ALA A 269	-22.374	39.366	36.714	1.00	17.76	C
ATOM	686	C	ALA A 269	-20.761	37.573	37.317	1.00	17.28	C
ATOM	687	O	ALA A 269	-20.662	37.099	38.446	1.00	17.23	O
ATOM	688	N	HIS A 270	-20.725	36.876	36.178	1.00	16.61	N
ATOM	690	CA	HIS A 270	-20.439	35.456	36.091	1.00	16.26	C
ATOM	692	CB	HIS A 270	-20.251	35.037	34.611	1.00	16.45	C

203

ATOM	695	CG HIS A 270	-20.072	33.561	34.411	1.00	17.07	C
ATOM	696	ND1 HIS A 270	-21.112	32.667	34.498	1.00	17.46	N
ATOM	698	CE1 HIS A 270	-20.659	31.441	34.305	1.00	18.13	C
ATOM	700	NE2 HIS A 270	-19.363	31.508	34.081	1.00	17.84	N
ATOM	702	CD2 HIS A 270	-18.968	32.820	34.155	1.00	18.32	C
ATOM	704	C HIS A 270	-19.196	35.150	36.913	1.00	16.12	C
ATOM	705	O HIS A 270	-19.222	34.259	37.760	1.00	16.15	O
ATOM	706	N PHE A 271	-18.115	35.907	36.692	1.00	15.98	N
ATOM	708	CA PHE A 271	-16.840	35.675	37.409	1.00	15.49	C
ATOM	710	CB PHE A 271	-15.728	36.586	36.903	1.00	15.33	C
ATOM	713	CG PHE A 271	-14.844	35.923	35.908	1.00	17.14	C
ATOM	714	CD1 PHE A 271	-15.387	35.182	34.871	1.00	18.69	C
ATOM	716	CE1 PHE A 271	-14.575	34.551	33.944	1.00	19.99	C
ATOM	718	CZ PHE A 271	-13.211	34.646	34.048	1.00	19.96	C
ATOM	720	CE2 PHE A 271	-12.655	35.384	35.069	1.00	19.86	C
ATOM	722	CD2 PHE A 271	-13.473	36.015	36.005	1.00	19.16	C
ATOM	724	C PHE A 271	-17.003	35.845	38.882	1.00	14.62	C
ATOM	725	O PHE A 271	-16.527	35.052	39.664	1.00	14.92	O
ATOM	726	N THR A 272	-17.732	36.882	39.229	1.00	14.01	N
ATOM	728	CA THR A 272	-18.029	37.264	40.588	1.00	13.51	C
ATOM	730	CB THR A 272	-18.697	38.673	40.511	1.00	13.40	C
ATOM	732	OG1 THR A 272	-17.981	39.587	41.346	1.00	13.64	O
ATOM	734	CG2 THR A 272	-20.135	38.717	40.981	1.00	12.87	C
ATOM	738	C THR A 272	-18.860	36.204	41.357	1.00	13.68	C
ATOM	739	O THR A 272	-18.763	36.074	42.579	1.00	12.27	O
ATOM	740	N GLU A 273	-19.649	35.430	40.620	1.00	14.33	N
ATOM	742	CA GLU A 273	-20.560	34.461	41.208	1.00	14.96	C
ATOM	744	CB GLU A 273	-21.823	34.347	40.363	1.00	15.07	C
ATOM	747	CG GLU A 273	-22.783	35.506	40.595	1.00	15.71	C
ATOM	750	CD GLU A 273	-23.552	35.917	39.347	1.00	18.47	C
ATOM	751	OE1 GLU A 273	-23.420	35.236	38.305	1.00	19.72	O
ATOM	752	OE2 GLU A 273	-24.295	36.930	39.403	1.00	19.58	O
ATOM	753	C GLU A 273	-19.881	33.115	41.402	1.00	15.28	C
ATOM	754	O GLU A 273	-20.162	32.411	42.365	1.00	15.66	O
ATOM	755	N LEU A 274	-18.983	32.768	40.489	1.00	15.69	N
ATOM	757	CA LEU A 274	-17.993	31.720	40.735	1.00	15.82	C
ATOM	759	CB LEU A 274	-17.112	31.523	39.513	1.00	16.11	C
ATOM	762	CG LEU A 274	-17.893	30.959	38.341	1.00	18.50	C
ATOM	764	CD1 LEU A 274	-17.141	31.090	37.003	1.00	19.08	C
ATOM	768	CD2 LEU A 274	-18.223	29.519	38.650	1.00	21.07	C
ATOM	772	C LEU A 274	-17.091	32.061	41.908	1.00	15.27	C
ATOM	773	O LEU A 274	-16.855	31.224	42.747	1.00	15.73	O
ATOM	774	N ALA A 275	-16.573	33.284	41.979	1.00	14.95	N
ATOM	776	CA ALA A 275	-15.706	33.668	43.100	1.00	14.65	C
ATOM	778	CB ALA A 275	-15.273	35.105	42.943	1.00	14.60	C
ATOM	782	C ALA A 275	-16.386	33.425	44.467	1.00	14.65	C
ATOM	783	O ALA A 275	-15.787	32.880	45.379	1.00	14.90	O
ATOM	784	N ILE A 276	-17.665	33.781	44.557	1.00	14.61	N

204

ATOM	786	CA	ILE A 276	-18.473	33.595	45.739	1.00	14.40	C
ATOM	788	CB	ILE A 276	-19.853	34.224	45.515	1.00	14.07	C
ATOM	790	CG1	ILE A 276	-19.752	35.730	45.719	1.00	12.92	C
ATOM	793	CD1	ILE A 276	-20.838	36.515	45.086	1.00	10.99	C
ATOM	797	CG2	ILE A 276	-20.885	33.637	46.457	1.00	14.11	C
ATOM	801	C	ILE A 276	-18.635	32.128	46.065	1.00	15.52	C
ATOM	802	O	ILE A 276	-18.594	31.743	47.217	1.00	16.10	O
ATOM	803	N	ILE A 277	-18.884	31.289	45.074	1.00	16.37	N
ATOM	805	CA	ILE A 277	-19.072	29.884	45.395	1.00	16.51	C
ATOM	807	CB	ILE A 277	-19.605	29.069	44.188	1.00	16.40	C
ATOM	809	CG1	ILE A 277	-21.009	29.557	43.805	1.00	15.48	C
ATOM	812	CD1	ILE A 277	-21.503	29.085	42.436	1.00	14.84	C
ATOM	816	CG2	ILE A 277	-19.615	27.543	44.502	1.00	16.15	C
ATOM	820	C	ILE A 277	-17.741	29.352	45.943	1.00	17.07	C
ATOM	821	O	ILE A 277	-17.775	28.554	46.868	1.00	17.29	O
ATOM	822	N	SER A 278	-16.588	29.809	45.424	1.00	17.53	N
ATOM	824	CA	SER A 278	-15.276	29.328	45.935	1.00	18.29	C
ATOM	826	CB	SER A 278	-14.080	29.758	45.095	1.00	18.13	C
ATOM	829	OG	SER A 278	-14.033	29.048	43.876	1.00	19.28	O
ATOM	831	C	SER A 278	-15.047	29.819	47.331	1.00	18.69	C
ATOM	832	O	SER A 278	-14.555	29.088	48.162	1.00	19.53	O
ATOM	833	N	VAL A 279	-15.425	31.061	47.599	1.00	18.86	N
ATOM	835	CA	VAL A 279	-15.327	31.582	48.943	1.00	18.40	C
ATOM	837	CB	VAL A 279	-15.826	33.007	49.018	1.00	18.28	C
ATOM	839	CG1	VAL A 279	-15.875	33.460	50.457	1.00	18.92	C
ATOM	843	CG2	VAL A 279	-14.915	33.940	48.179	1.00	18.55	C
ATOM	847	C	VAL A 279	-16.101	30.691	49.899	1.00	18.11	C
ATOM	848	O	VAL A 279	-15.637	30.422	50.989	1.00	18.34	O
ATOM	849	N	GLN A 280	-17.260	30.206	49.488	1.00	18.45	N
ATOM	851	CA	GLN A 280	-18.096	29.360	50.355	1.00	19.16	C
ATOM	853	CB	GLN A 280	-19.481	29.137	49.735	1.00	19.21	C
ATOM	856	CG	GLN A 280	-20.395	28.181	50.530	1.00	19.68	C
ATOM	859	CD	GLN A 280	-21.736	27.882	49.845	1.00	19.43	C
ATOM	860	OE1	GLN A 280	-21.832	27.889	48.617	1.00	20.07	O
ATOM	861	NE2	GLN A 280	-22.768	27.626	50.647	1.00	18.11	N
ATOM	864	C	GLN A 280	-17.412	28.008	50.613	1.00	19.69	C
ATOM	865	O	GLN A 280	-17.382	27.501	51.752	1.00	19.08	O
ATOM	866	N	GLU A 281	-16.850	27.451	49.540	1.00	20.23	N
ATOM	868	CA	GLU A 281	-16.128	26.191	49.597	1.00	20.69	C
ATOM	870	CB	GLU A 281	-15.652	25.802	48.195	1.00	21.17	C
ATOM	873	CG	GLU A 281	-15.182	24.352	48.059	1.00	23.43	C
ATOM	876	CD	GLU A 281	-14.489	24.077	46.741	1.00	25.24	C
ATOM	877	OE1	GLU A 281	-14.400	25.003	45.920	1.00	27.50	O
ATOM	878	OE2	GLU A 281	-14.043	22.939	46.515	1.00	26.24	O
ATOM	879	C	GLU A 281	-14.947	26.286	50.569	1.00	20.27	C
ATOM	880	O	GLU A 281	-14.722	25.383	51.381	1.00	19.17	O
ATOM	881	N	ILE A 282	-14.227	27.401	50.493	1.00	20.70	N
ATOM	883	CA	ILE A 282	-13.020	27.618	51.279	1.00	21.12	C

205

ATOM	885	CB	ILE A 282	-12.241	28.824	50.743	1.00	21.29	C
ATOM	887	CG1	ILE A 282	-11.674	28.506	49.374	1.00	22.06	C
ATOM	890	CD1	ILE A 282	-11.200	29.748	48.677	1.00	24.25	C
ATOM	894	CG2	ILE A 282	-11.072	29.220	51.666	1.00	21.70	C
ATOM	898	C	ILE A 282	-13.399	27.807	52.735	1.00	21.18	C
ATOM	899	O	ILE A 282	-12.773	27.260	53.634	1.00	20.38	O
ATOM	900	N	VAL A 283	-14.455	28.552	52.977	1.00	21.82	N
ATOM	902	CA	VAL A 283	-14.887	28.744	54.355	1.00	22.56	C
ATOM	904	CB	VAL A 283	-16.002	29.835	54.469	1.00	22.43	C
ATOM	906	CG1	VAL A 283	-16.530	29.899	55.863	1.00	22.01	C
ATOM	910	CG2	VAL A 283	-15.454	31.201	54.076	1.00	22.49	C
ATOM	914	C	VAL A 283	-15.313	27.404	54.959	1.00	22.99	C
ATOM	915	O	VAL A 283	-14.946	27.104	56.090	1.00	23.43	O
ATOM	916	N	ASP A 284	-16.055	26.592	54.196	1.00	23.57	N
ATOM	918	CA	ASP A 284	-16.445	25.232	54.627	1.00	23.91	C
ATOM	920	CB	ASP A 284	-17.270	24.496	53.555	1.00	24.56	C
ATOM	923	CG	ASP A 284	-18.701	25.006	53.464	1.00	27.94	C
ATOM	924	OD1	ASP A 284	-19.410	24.651	52.474	1.00	30.69	O
ATOM	925	OD2	ASP A 284	-19.189	25.776	54.342	1.00	31.56	O
ATOM	926	C	ASP A 284	-15.253	24.363	54.962	1.00	22.67	C
ATOM	927	O	ASP A 284	-15.314	23.576	55.875	1.00	22.99	O
ATOM	928	N	PHE A 285	-14.180	24.489	54.208	1.00	21.73	N
ATOM	930	CA	PHE A 285	-12.993	23.686	54.447	1.00	21.06	C
ATOM	932	CB	PHE A 285	-12.137	23.695	53.194	1.00	20.37	C
ATOM	935	CG	PHE A 285	-10.851	23.025	53.351	1.00	18.40	C
ATOM	936	CD1	PHE A 285	-10.762	21.667	53.241	1.00	19.63	C
ATOM	938	CE1	PHE A 285	-9.558	21.030	53.393	1.00	18.18	C
ATOM	940	CZ	PHE A 285	-8.460	21.745	53.668	1.00	17.14	C
ATOM	942	CE2	PHE A 285	-8.544	23.107	53.782	1.00	17.51	C
ATOM	944	CD2	PHE A 285	-9.726	23.737	53.621	1.00	16.48	C
ATOM	946	C	PHE A 285	-12.224	24.199	55.691	1.00	21.65	C
ATOM	947	O	PHE A 285	-11.761	23.414	56.515	1.00	21.74	O
ATOM	948	N	ALA A 286	-12.111	25.519	55.831	1.00	22.24	N
ATOM	950	CA	ALA A 286	-11.398	26.144	56.945	1.00	22.34	C
ATOM	952	CB	ALA A 286	-11.548	27.662	56.873	1.00	22.09	C
ATOM	956	C	ALA A 286	-11.967	25.630	58.255	1.00	22.99	C
ATOM	957	O	ALA A 286	-11.245	25.348	59.214	1.00	22.63	O
ATOM	958	N	LYS A 287	-13.285	25.499	58.258	1.00	23.62	N
ATOM	960	CA	LYS A 287	-14.022	25.133	59.438	1.00	24.58	C
ATOM	962	CB	LYS A 287	-15.534	25.200	59.161	1.00	25.41	C
ATOM	965	CG	LYS A 287	-16.157	26.612	59.304	1.00	27.79	C
ATOM	968	CD	LYS A 287	-17.429	26.774	58.442	1.00	30.45	C
ATOM	971	CE	LYS A 287	-18.692	26.964	59.266	1.00	30.44	C
ATOM	974	NZ	LYS A 287	-19.850	26.614	58.412	1.00	31.17	N
ATOM	978	C	LYS A 287	-13.672	23.750	59.909	1.00	24.06	C
ATOM	979	O	LYS A 287	-13.801	23.472	61.083	1.00	24.69	O
ATOM	980	N	GLN A 288	-13.276	22.887	58.982	1.00	23.67	N
ATOM	982	CA	GLN A 288	-12.971	21.495	59.266	1.00	23.33	C

206

ATOM	984	CB	GLN A 288	-13.479	20.618	58.132	1.00	23.55	C
ATOM	987	CG	GLN A 288	-14.961	20.346	58.204	1.00	26.24	C
ATOM	990	CD	GLN A 288	-15.538	19.977	56.851	1.00	29.73	C
ATOM	991	OE1	GLN A 288	-15.784	18.803	56.568	1.00	33.37	O
ATOM	992	NE2	GLN A 288	-15.745	20.979	56.006	1.00	30.98	N
ATOM	995	C	GLN A 288	-11.481	21.247	59.461	1.00	22.42	C
ATOM	996	O	GLN A 288	-11.075	20.112	59.681	1.00	22.22	O
ATOM	997	N	VAL A 289	-10.666	22.291	59.372	1.00	21.47	N
ATOM	999	CA	VAL A 289	-9.236	22.147	59.624	1.00	21.01	C
ATOM	1001	CB	VAL A 289	-8.420	23.258	58.923	1.00	20.55	C
ATOM	1003	CG1	VAL A 289	-6.947	23.229	59.338	1.00	20.04	C
ATOM	1007	CG2	VAL A 289	-8.523	23.112	57.423	1.00	20.55	C
ATOM	1011	C	VAL A 289	-9.005	22.162	61.137	1.00	21.11	C
ATOM	1012	O	VAL A 289	-9.284	23.151	61.788	1.00	20.89	O
ATOM	1013	N	PRO A 290	-8.511	21.078	61.711	1.00	21.55	N
ATOM	1014	CA	PRO A 290	-8.262	21.048	63.155	1.00	21.97	C
ATOM	1016	CB	PRO A 290	-7.576	19.691	63.374	1.00	21.92	C
ATOM	1019	CG	PRO A 290	-8.110	18.849	62.272	1.00	22.54	C
ATOM	1022	CD	PRO A 290	-8.177	19.795	61.074	1.00	22.12	C
ATOM	1025	C	PRO A 290	-7.382	22.201	63.648	1.00	22.60	C
ATOM	1026	O	PRO A 290	-6.302	22.483	63.085	1.00	21.36	O
ATOM	1027	N	GLY A 291	-7.862	22.840	64.728	1.00	23.56	N
ATOM	1029	CA	GLY A 291	-7.273	24.061	65.253	1.00	24.05	C
ATOM	1032	C	GLY A 291	-8.084	25.312	64.881	1.00	24.85	C
ATOM	1033	O	GLY A 291	-8.128	26.286	65.642	1.00	25.14	O
ATOM	1034	N	PHE A 292	-8.739	25.315	63.724	1.00	25.09	N
ATOM	1036	CA	PHE A 292	-9.328	26.556	63.259	1.00	25.49	C
ATOM	1038	CB	PHE A 292	-9.782	26.476	61.792	1.00	25.34	C
ATOM	1041	CG	PHE A 292	-10.313	27.793	61.247	1.00	24.83	C
ATOM	1042	CD1	PHE A 292	-9.473	28.687	60.606	1.00	24.26	C
ATOM	1044	CE1	PHE A 292	-9.958	29.889	60.111	1.00	24.47	C
ATOM	1046	CZ	PHE A 292	-11.275	30.213	60.262	1.00	24.13	C
ATOM	1048	CE2	PHE A 292	-12.130	29.324	60.890	1.00	24.51	C
ATOM	1050	CD2	PHE A 292	-11.651	28.131	61.382	1.00	24.38	C
ATOM	1052	C	PHE A 292	-10.490	26.935	64.155	1.00	26.26	C
ATOM	1053	O	PHE A 292	-10.486	27.995	64.754	1.00	25.69	O
ATOM	1054	N	LEU A 293	-11.483	26.058	64.251	1.00	27.65	N
ATOM	1056	CA	LEU A 293	-12.710	26.388	64.964	1.00	28.61	C
ATOM	1058	CB	LEU A 293	-13.840	25.376	64.683	1.00	29.02	C
ATOM	1061	CG	LEU A 293	-14.810	25.599	63.488	1.00	31.33	C
ATOM	1063	CD1	LEU A 293	-16.103	24.757	63.649	1.00	32.23	C
ATOM	1067	CD2	LEU A 293	-15.200	27.064	63.259	1.00	32.62	C
ATOM	1071	C	LEU A 293	-12.422	26.513	66.458	1.00	28.53	C
ATOM	1072	O	LEU A 293	-13.307	26.810	67.227	1.00	29.36	O
ATOM	1073	N	GLN A 294	-11.175	26.343	66.857	1.00	28.36	N
ATOM	1075	CA	GLN A 294	-10.793	26.517	68.233	1.00	28.53	C
ATOM	1077	CB	GLN A 294	-10.086	25.229	68.671	1.00	29.69	C
ATOM	1080	CG	GLN A 294	-11.080	23.994	68.980	1.00	30.93	C

207

ATOM	1083	CD	GLN A 294	-12.019	23.596	67.821	1.00	31.94	C
ATOM	1084	OE1	GLN A 294	-11.601	23.523	66.654	1.00	33.37	O
ATOM	1085	NE2	GLN A 294	-13.285	23.343	68.153	1.00	32.22	N
ATOM	1088	C	GLN A 294	-9.927	27.765	68.483	1.00	28.31	C
ATOM	1089	O	GLN A 294	-9.371	27.939	69.568	1.00	28.59	O
ATOM	1090	N	LEU A 295	-9.821	28.644	67.479	1.00	27.61	N
ATOM	1092	CA	LEU A 295	-9.274	30.007	67.642	1.00	25.98	C
ATOM	1094	CB	LEU A 295	-8.658	30.501	66.340	1.00	25.70	C
ATOM	1097	CG	LEU A 295	-7.250	30.025	66.006	1.00	25.90	C
ATOM	1099	CD1	LEU A 295	-6.950	30.228	64.483	1.00	25.84	C
ATOM	1103	CD2	LEU A 295	-6.190	30.700	66.899	1.00	25.19	C
ATOM	1107	C	LEU A 295	-10.417	30.935	68.024	1.00	25.16	C
ATOM	1108	O	LEU A 295	-11.575	30.558	67.862	1.00	24.68	O
ATOM	1109	N	GLY A 296	-10.097	32.143	68.505	1.00	24.51	N
ATOM	1111	CA	GLY A 296	-11.111	33.132	68.854	1.00	24.03	C
ATOM	1114	C	GLY A 296	-11.784	33.597	67.590	1.00	24.16	C
ATOM	1115	O	GLY A 296	-11.126	33.708	66.564	1.00	24.80	O
ATOM	1116	N	ARG A 297	-13.080	33.860	67.620	1.00	24.32	N
ATOM	1118	CA	ARG A 297	-13.810	34.213	66.382	1.00	25.00	C
ATOM	1120	CB	ARG A 297	-15.255	34.611	66.698	1.00	25.43	C
ATOM	1123	CG	ARG A 297	-16.188	34.290	65.559	1.00	27.42	C
ATOM	1126	CD	ARG A 297	-17.373	35.210	65.432	1.00	31.34	C
ATOM	1129	NE	ARG A 297	-18.364	34.571	64.557	1.00	35.73	N
ATOM	1131	CZ	ARG A 297	-19.306	35.200	63.859	1.00	37.74	C
ATOM	1132	NH1	ARG A 297	-19.424	36.516	63.913	1.00	38.58	N
ATOM	1135	NH2	ARG A 297	-20.138	34.496	63.102	1.00	38.50	N
ATOM	1138	C	ARG A 297	-13.182	35.312	65.466	1.00	24.72	C
ATOM	1139	O	ARG A 297	-13.282	35.238	64.232	1.00	23.75	O
ATOM	1140	N	GLU A 298	-12.582	36.328	66.090	1.00	24.68	N
ATOM	1142	CA	GLU A 298	-11.933	37.438	65.387	1.00	24.95	C
ATOM	1144	CB	GLU A 298	-11.537	38.549	66.372	1.00	25.42	C
ATOM	1147	CG	GLU A 298	-12.416	39.784	66.315	1.00	28.30	C
ATOM	1150	CD	GLU A 298	-13.846	39.509	66.741	1.00	32.48	C
ATOM	1151	OE1	GLU A 298	-14.656	39.068	65.869	1.00	35.14	O
ATOM	1152	OE2	GLU A 298	-14.156	39.737	67.944	1.00	34.25	O
ATOM	1153	C	GLU A 298	-10.695	36.976	64.615	1.00	24.10	C
ATOM	1154	O	GLU A 298	-10.458	37.418	63.488	1.00	23.76	O
ATOM	1155	N	ASP A 299	-9.902	36.108	65.227	1.00	23.29	N
ATOM	1157	CA	ASP A 299	-8.799	35.478	64.505	1.00	22.93	C
ATOM	1159	CB	ASP A 299	-7.881	34.701	65.449	1.00	22.83	C
ATOM	1162	CG	ASP A 299	-7.095	35.611	66.379	1.00	22.90	C
ATOM	1163	OD1	ASP A 299	-6.927	36.798	66.038	1.00	21.91	O
ATOM	1164	OD2	ASP A 299	-6.622	35.221	67.473	1.00	24.10	O
ATOM	1165	C	ASP A 299	-9.274	34.553	63.392	1.00	22.80	C
ATOM	1166	O	ASP A 299	-8.617	34.464	62.367	1.00	22.18	O
ATOM	1167	N	GLN A 300	-10.404	33.864	63.583	1.00	22.76	N
ATOM	1169	CA	GLN A 300	-10.942	33.027	62.510	1.00	22.87	C
ATOM	1171	CB	GLN A 300	-12.216	32.311	62.924	1.00	22.91	C

208

ATOM	1174	CG	GLN A 300	-11.973	31.073	63.743	1.00	23.81	C
ATOM	1177	CD	GLN A 300	-13.227	30.542	64.412	1.00	23.65	C
ATOM	1178	OE1	GLN A 300	-13.146	30.027	65.521	1.00	24.04	O
ATOM	1179	NE2	GLN A 300	-14.378	30.679	63.757	1.00	23.05	N
ATOM	1182	C	GLN A 300	-11.261	33.863	61.293	1.00	22.97	C
ATOM	1183	O	GLN A 300	-10.993	33.443	60.164	1.00	24.45	O
ATOM	1184	N	ILE A 301	-11.854	35.030	61.534	1.00	22.34	N
ATOM	1186	CA	ILE A 301	-12.253	35.953	60.491	1.00	21.80	C
ATOM	1188	CB	ILE A 301	-13.185	37.048	61.078	1.00	21.87	C
ATOM	1190	CG1	ILE A 301	-14.594	36.477	61.342	1.00	22.74	C
ATOM	1193	CD1	ILE A 301	-15.503	37.351	62.232	1.00	22.27	C
ATOM	1197	CG2	ILE A 301	-13.313	38.185	60.127	1.00	21.94	C
ATOM	1201	C	ILE A 301	-11.020	36.576	59.838	1.00	21.40	C
ATOM	1202	O	ILE A 301	-10.971	36.722	58.605	1.00	21.05	O
ATOM	1203	N	ALA A 302	-10.036	36.922	60.674	1.00	20.83	N
ATOM	1205	CA	ALA A 302	-8.830	37.605	60.233	1.00	20.46	C
ATOM	1207	CB	ALA A 302	-7.987	37.974	61.406	1.00	19.86	C
ATOM	1211	C	ALA A 302	-8.039	36.724	59.281	1.00	20.94	C
ATOM	1212	O	ALA A 302	-7.610	37.189	58.216	1.00	20.77	O
ATOM	1213	N	LEU A 303	-7.872	35.453	59.658	1.00	21.40	N
ATOM	1215	CA	LEU A 303	-7.090	34.488	58.881	1.00	21.77	C
ATOM	1217	CB	LEU A 303	-6.801	33.228	59.684	1.00	21.23	C
ATOM	1220	CG	LEU A 303	-6.008	33.467	60.968	1.00	21.16	C
ATOM	1222	CD1	LEU A 303	-5.946	32.138	61.668	1.00	21.97	C
ATOM	1226	CD2	LEU A 303	-4.600	34.067	60.755	1.00	19.94	C
ATOM	1230	C	LEU A 303	-7.786	34.109	57.585	1.00	22.85	C
ATOM	1231	O	LEU A 303	-7.134	33.988	56.537	1.00	22.72	O
ATOM	1232	N	LEU A 304	-9.100	33.918	57.639	1.00	23.86	N
ATOM	1234	CA	LEU A 304	-9.856	33.696	56.403	1.00	24.79	C
ATOM	1236	CB	LEU A 304	-11.294	33.276	56.694	1.00	25.13	C
ATOM	1239	CG	LEU A 304	-11.480	31.777	56.894	1.00	27.17	C
ATOM	1241	CD1	LEU A 304	-12.937	31.437	57.319	1.00	27.02	C
ATOM	1245	CD2	LEU A 304	-11.069	31.035	55.600	1.00	28.70	C
ATOM	1249	C	LEU A 304	-9.838	34.926	55.483	1.00	24.88	C
ATOM	1250	O	LEU A 304	-9.728	34.784	54.278	1.00	25.15	O
ATOM	1251	N	LYS A 305	-9.938	36.128	56.033	1.00	24.70	N
ATOM	1253	CA	LYS A 305	-9.977	37.306	55.173	1.00	24.80	C
ATOM	1255	CB	LYS A 305	-10.122	38.628	55.957	1.00	25.19	C
ATOM	1258	CG	LYS A 305	-11.575	39.064	56.156	1.00	27.47	C
ATOM	1261	CD	LYS A 305	-11.731	40.506	56.674	1.00	29.14	C
ATOM	1264	CE	LYS A 305	-11.169	41.544	55.708	1.00	29.79	C
ATOM	1267	NZ	LYS A 305	-12.152	42.664	55.499	1.00	29.76	N
ATOM	1271	C	LYS A 305	-8.738	37.360	54.307	1.00	24.04	C
ATOM	1272	O	LYS A 305	-8.842	37.631	53.127	1.00	24.22	O
ATOM	1273	N	ALA A 306	-7.576	37.100	54.893	1.00	23.38	N
ATOM	1275	CA	ALA A 306	-6.310	37.249	54.191	1.00	22.95	C
ATOM	1277	CB	ALA A 306	-5.225	37.367	55.183	1.00	23.00	C
ATOM	1281	C	ALA A 306	-6.029	36.064	53.266	1.00	23.52	C

209

ATOM	1282	O	ALA A 306	-5.458	36.226	52.197	1.00	23.67	O
ATOM	1283	N	SER A 307	-6.467	34.877	53.694	1.00	23.82	N
ATOM	1285	CA	SER A 307	-6.222	33.599	53.023	1.00	23.95	C
ATOM	1287	CB	SER A 307	-6.596	32.467	53.986	1.00	24.44	C
ATOM	1290	OG	SER A 307	-5.539	32.160	54.863	1.00	28.57	O
ATOM	1292	C	SER A 307	-7.068	33.348	51.788	1.00	23.00	C
ATOM	1293	O	SER A 307	-6.685	32.637	50.874	1.00	22.83	O
ATOM	1294	N	THR A 308	-8.270	33.870	51.809	1.00	22.03	N
ATOM	1296	CA	THR A 308	-9.257	33.485	50.837	1.00	21.51	C
ATOM	1298	CB	THR A 308	-10.553	34.297	51.065	1.00	21.69	C
ATOM	1300	OG1	THR A 308	-11.122	33.910	52.312	1.00	21.74	O
ATOM	1302	CG2	THR A 308	-11.647	33.909	50.100	1.00	22.66	C
ATOM	1306	C	THR A 308	-8.725	33.603	49.407	1.00	20.49	C
ATOM	1307	O	THR A 308	-8.767	32.632	48.675	1.00	20.62	O
ATOM	1308	N	ILE A 309	-8.206	34.759	49.015	1.00	19.39	N
ATOM	1310	CA	ILE A 309	-7.715	34.924	47.646	1.00	18.77	C
ATOM	1312	CB	ILE A 309	-7.337	36.393	47.351	1.00	18.63	C
ATOM	1314	CG1	ILE A 309	-7.044	36.608	45.855	1.00	19.02	C
ATOM	1317	CD1	ILE A 309	-8.254	36.358	44.924	1.00	19.57	C
ATOM	1321	CG2	ILE A 309	-6.139	36.793	48.139	1.00	18.43	C
ATOM	1325	C	ILE A 309	-6.527	34.004	47.381	1.00	18.63	C
ATOM	1326	O	ILE A 309	-6.354	33.525	46.249	1.00	18.68	O
ATOM	1327	N	GLU A 310	-5.705	33.775	48.413	1.00	18.19	N
ATOM	1329	CA	GLU A 310	-4.515	32.938	48.286	1.00	17.74	C
ATOM	1331	CB	GLU A 310	-3.592	33.055	49.501	1.00	17.22	C
ATOM	1334	CG	GLU A 310	-3.035	34.449	49.613	1.00	17.01	C
ATOM	1337	CD	GLU A 310	-2.126	34.694	50.786	1.00	16.86	C
ATOM	1338	OE1	GLU A 310	-1.578	33.754	51.386	1.00	17.65	O
ATOM	1339	OE2	GLU A 310	-1.964	35.882	51.094	1.00	16.61	O
ATOM	1340	C	GLU A 310	-4.929	31.517	48.080	1.00	18.04	C
ATOM	1341	O	GLU A 310	-4.327	30.824	47.303	1.00	19.07	O
ATOM	1342	N	ILE A 311	-5.978	31.084	48.747	1.00	18.10	N
ATOM	1344	CA	ILE A 311	-6.409	29.721	48.622	1.00	18.31	C
ATOM	1346	CB	ILE A 311	-7.388	29.349	49.738	1.00	18.22	C
ATOM	1348	CG1	ILE A 311	-6.685	29.378	51.088	1.00	19.46	C
ATOM	1351	CD1	ILE A 311	-7.626	29.479	52.271	1.00	20.90	C
ATOM	1355	CG2	ILE A 311	-7.895	27.966	49.527	1.00	19.07	C
ATOM	1359	C	ILE A 311	-7.052	29.577	47.274	1.00	18.37	C
ATOM	1360	O	ILE A 311	-7.004	28.511	46.690	1.00	19.22	O
ATOM	1361	N	MET A 312	-7.657	30.651	46.782	1.00	18.59	N
ATOM	1363	CA	MET A 312	-8.302	30.648	45.483	1.00	19.12	C
ATOM	1365	CB	MET A 312	-9.078	31.951	45.258	1.00	19.36	C
ATOM	1368	CG	MET A 312	-10.465	31.911	45.882	1.00	21.56	C
ATOM	1371	SD	MET A 312	-11.398	33.489	46.069	1.00	24.13	S
ATOM	1372	CE	MET A 312	-12.498	33.369	44.743	1.00	24.71	C
ATOM	1376	C	MET A 312	-7.269	30.479	44.384	1.00	19.31	C
ATOM	1377	O	MET A 312	-7.549	29.928	43.330	1.00	19.64	O
ATOM	1378	N	LEU A 313	-6.073	30.983	44.635	1.00	19.67	N

210

ATOM	1380	CA	LEU A 313	-4.998	30.969	43.668	1.00	19.66	C
ATOM	1382	CB	LEU A 313	-3.984	32.036	44.049	1.00	19.66	C
ATOM	1385	CG	LEU A 313	-4.382	33.451	43.609	1.00	19.99	C
ATOM	1387	CD1	LEU A 313	-3.726	34.533	44.426	1.00	20.68	C
ATOM	1391	CD2	LEU A 313	-3.965	33.656	42.193	1.00	20.17	C
ATOM	1395	C	LEU A 313	-4.382	29.580	43.614	1.00	19.87	C
ATOM	1396	O	LEU A 313	-4.102	29.071	42.557	1.00	19.56	O
ATOM	1397	N	LEU A 314	-4.187	28.975	44.768	1.00	20.83	N
ATOM	1399	CA	LEU A 314	-3.805	27.574	44.872	1.00	22.28	C
ATOM	1401	CB	LEU A 314	-3.727	27.163	46.359	1.00	22.48	C
ATOM	1404	CG	LEU A 314	-2.398	27.033	47.141	1.00	23.90	C
ATOM	1406	CD1	LEU A 314	-1.137	27.368	46.355	1.00	24.36	C
ATOM	1410	CD2	LEU A 314	-2.445	27.875	48.405	1.00	24.82	C
ATOM	1414	C	LEU A 314	-4.835	26.670	44.161	1.00	23.33	C
ATOM	1415	O	LEU A 314	-4.491	25.810	43.346	1.00	23.05	O
ATOM	1416	N	GLU A 315	-6.101	26.885	44.498	1.00	24.65	N
ATOM	1418	CA	GLU A 315	-7.195	26.089	43.976	1.00	25.56	C
ATOM	1420	CB	GLU A 315	-8.528	26.462	44.650	1.00	25.69	C
ATOM	1423	CG	GLU A 315	-8.815	25.728	45.979	1.00	28.10	C
ATOM	1426	CD	GLU A 315	-8.859	24.192	45.890	1.00	30.08	C
ATOM	1427	OE1	GLU A 315	-9.321	23.639	44.872	1.00	33.50	O
ATOM	1428	OE2	GLU A 315	-8.428	23.521	46.852	1.00	32.27	O
ATOM	1429	C	GLU A 315	-7.296	26.247	42.469	1.00	25.69	C
ATOM	1430	O	GLU A 315	-7.555	25.285	41.787	1.00	26.52	O
ATOM	1431	N	THR A 316	-7.082	27.448	41.955	1.00	25.90	N
ATOM	1433	CA	THR A 316	-7.090	27.696	40.526	1.00	26.05	C
ATOM	1435	CB	THR A 316	-6.922	29.203	40.277	1.00	26.00	C
ATOM	1437	OG1	THR A 316	-8.093	29.889	40.710	1.00	24.43	O
ATOM	1439	CG2	THR A 316	-6.825	29.557	38.776	1.00	26.36	C
ATOM	1443	C	THR A 316	-5.949	26.911	39.881	1.00	27.15	C
ATOM	1444	O	THR A 316	-6.106	26.291	38.827	1.00	27.00	O
ATOM	1445	N	ALA A 317	-4.792	26.935	40.526	1.00	28.49	N
ATOM	1447	CA	ALA A 317	-3.647	26.202	40.032	1.00	29.48	C
ATOM	1449	CB	ALA A 317	-2.414	26.524	40.852	1.00	29.09	C
ATOM	1453	C	ALA A 317	-3.946	24.693	40.025	1.00	30.57	C
ATOM	1454	O	ALA A 317	-3.513	23.991	39.109	1.00	30.74	O
ATOM	1455	N	ARG A 318	-4.687	24.216	41.028	1.00	31.85	N
ATOM	1457	CA	ARG A 318	-5.126	22.825	41.101	1.00	33.09	C
ATOM	1459	CB	ARG A 318	-5.911	22.570	42.392	1.00	33.39	C
ATOM	1462	CG	ARG A 318	-5.487	21.303	43.102	1.00	36.52	C
ATOM	1465	CD	ARG A 318	-5.983	21.150	44.538	1.00	41.24	C
ATOM	1468	NE	ARG A 318	-6.420	19.776	44.794	1.00	44.94	N
ATOM	1470	CZ	ARG A 318	-7.700	19.383	44.906	1.00	49.98	C
ATOM	1471	NH1	ARG A 318	-8.712	20.264	44.812	1.00	51.18	N
ATOM	1474	NH2	ARG A 318	-7.985	18.089	45.115	1.00	51.48	N
ATOM	1477	C	ARG A 318	-5.984	22.488	39.874	1.00	33.69	C
ATOM	1478	O	ARG A 318	-5.744	21.492	39.180	1.00	33.38	O
ATOM	1479	N	ARG A 319	-6.941	23.375	39.589	1.00	34.59	N

211

ATOM	1481	CA	ARG A 319	-7.887	23.259	38.465	1.00	35.10	C
ATOM	1483	CB	ARG A 319	-9.108	24.159	38.716	1.00	34.88	C
ATOM	1486	CG	ARG A 319	-9.918	23.762	39.930	1.00	35.78	C
ATOM	1489	CD	ARG A 319	-11.099	24.665	40.185	1.00	38.17	C
ATOM	1492	NE	ARG A 319	-11.891	24.243	41.351	1.00	39.91	N
ATOM	1494	CZ	ARG A 319	-12.277	25.046	42.355	1.00	41.85	C
ATOM	1495	NH1	ARG A 319	-11.947	26.339	42.397	1.00	42.33	N
ATOM	1498	NH2	ARG A 319	-12.985	24.543	43.353	1.00	43.47	N
ATOM	1501	C	ARG A 319	-7.285	23.598	37.093	1.00	35.47	C
ATOM	1502	O	ARG A 319	-7.976	23.569	36.076	1.00	35.25	O
ATOM	1503	N	TYR A 320	-6.003	23.934	37.066	1.00	36.30	N
ATOM	1505	CA	TYR A 320	-5.333	24.270	35.818	1.00	36.91	C
ATOM	1507	CB	TYR A 320	-4.014	25.004	36.080	1.00	36.73	C
ATOM	1510	CG	TYR A 320	-3.309	25.509	34.837	1.00	36.21	C
ATOM	1511	CD1	TYR A 320	-3.835	26.560	34.077	1.00	36.01	C
ATOM	1513	CE1	TYR A 320	-3.161	27.041	32.939	1.00	35.49	C
ATOM	1515	CZ	TYR A 320	-1.952	26.461	32.557	1.00	35.82	C
ATOM	1516	OH	TYR A 320	-1.250	26.900	31.438	1.00	36.55	O
ATOM	1518	CE2	TYR A 320	-1.432	25.416	33.299	1.00	35.51	C
ATOM	1520	CD2	TYR A 320	-2.107	24.948	34.429	1.00	35.41	C
ATOM	1522	C	TYR A 320	-5.081	22.984	35.058	1.00	37.52	C
ATOM	1523	O	TYR A 320	-4.856	21.920	35.656	1.00	37.77	O
ATOM	1524	N	ASN A 321	-5.132	23.095	33.741	1.00	38.08	N
ATOM	1526	CA	ASN A 321	-4.933	21.965	32.868	1.00	38.74	C
ATOM	1528	CB	ASN A 321	-6.292	21.542	32.305	1.00	39.04	C
ATOM	1531	CG	ASN A 321	-6.270	20.161	31.660	1.00	39.71	C
ATOM	1532	OD1	ASN A 321	-5.695	19.212	32.207	1.00	39.37	O
ATOM	1533	ND2	ASN A 321	-6.921	20.040	30.495	1.00	40.27	N
ATOM	1536	C	ASN A 321	-3.975	22.450	31.795	1.00	39.20	C
ATOM	1537	O	ASN A 321	-4.361	23.240	30.934	1.00	38.92	O
ATOM	1538	N	HIS A 322	-2.714	22.017	31.880	1.00	39.98	N
ATOM	1540	CA	HIS A 322	-1.655	22.572	31.029	1.00	40.64	C
ATOM	1542	CB	HIS A 322	-0.274	22.102	31.487	1.00	40.96	C
ATOM	1545	CG	HIS A 322	0.864	22.772	30.767	1.00	42.17	C
ATOM	1546	ND1	HIS A 322	1.029	24.142	30.741	1.00	42.91	N
ATOM	1548	CE1	HIS A 322	2.112	24.440	30.042	1.00	43.21	C
ATOM	1550	NE2	HIS A 322	2.653	23.314	29.608	1.00	43.01	N
ATOM	1552	CD2	HIS A 322	1.889	22.256	30.042	1.00	42.88	C
ATOM	1554	C	HIS A 322	-1.851	22.243	29.549	1.00	40.86	C
ATOM	1555	O	HIS A 322	-1.574	23.078	28.683	1.00	41.03	O
ATOM	1556	N	GLU A 323	-2.317	21.027	29.264	1.00	41.10	N
ATOM	1558	CA	GLU A 323	-2.709	20.652	27.904	1.00	41.20	C
ATOM	1560	CB	GLU A 323	-3.456	19.306	27.896	1.00	41.38	C
ATOM	1563	CG	GLU A 323	-2.655	18.079	28.329	1.00	41.67	C
ATOM	1566	CD	GLU A 323	-3.403	16.773	28.066	1.00	41.89	C
ATOM	1567	OE1	GLU A 323	-4.263	16.390	28.904	1.00	41.85	O
ATOM	1568	OE2	GLU A 323	-3.140	16.137	27.018	1.00	40.22	O
ATOM	1569	C	GLU A 323	-3.606	21.733	27.270	1.00	41.09	C

212

ATOM	1570	O	GLU A 323	-3.355	22.148	26.142	1.00	40.95	O
ATOM	1571	N	THR A 324	-4.626	22.190	28.015	1.00	41.03	N
ATOM	1573	CA	THR A 324	-5.670	23.114	27.504	1.00	40.78	C
ATOM	1575	CB	THR A 324	-7.095	22.609	27.932	1.00	40.89	C
ATOM	1577	OG1	THR A 324	-7.189	22.469	29.362	1.00	39.74	O
ATOM	1579	CG2	THR A 324	-7.387	21.187	27.379	1.00	40.81	C
ATOM	1583	C	THR A 324	-5.533	24.626	27.852	1.00	40.66	C
ATOM	1584	O	THR A 324	-6.207	25.455	27.232	1.00	40.67	O
ATOM	1585	N	GLU A 325	-4.659	24.975	28.802	1.00	40.26	N
ATOM	1587	CA	GLU A 325	-4.478	26.359	29.285	1.00	40.12	C
ATOM	1589	CB	GLU A 325	-3.905	27.276	28.182	1.00	40.18	C
ATOM	1592	CG	GLU A 325	-2.419	27.589	28.320	1.00	40.42	C
ATOM	1595	CD	GLU A 325	-1.562	26.845	27.301	1.00	41.51	C
ATOM	1596	OE1	GLU A 325	-1.843	25.658	27.002	1.00	41.27	O
ATOM	1597	OE2	GLU A 325	-0.595	27.450	26.787	1.00	42.41	O
ATOM	1598	C	GLU A 325	-5.738	26.999	29.917	1.00	39.99	C
ATOM	1599	O	GLU A 325	-5.946	28.221	29.812	1.00	40.10	O
ATOM	1600	N	CYS A 326	-6.541	26.183	30.609	1.00	39.50	N
ATOM	1602	CA	CYS A 326	-7.790	26.640	31.228	1.00	38.95	C
ATOM	1604	CB	CYS A 326	-8.992	26.185	30.401	1.00	39.01	C
ATOM	1607	SG	CYS A 326	-9.111	26.981	28.799	1.00	38.58	S
ATOM	1608	C	CYS A 326	-7.992	26.138	32.643	1.00	38.53	C
ATOM	1609	O	CYS A 326	-7.344	25.183	33.093	1.00	38.33	O
ATOM	1610	N	ILE A 327	-8.945	26.771	33.316	1.00	37.77	N
ATOM	1612	CA	ILE A 327	-9.236	26.471	34.697	1.00	37.49	C
ATOM	1614	CB	ILE A 327	-9.142	27.781	35.509	1.00	37.81	C
ATOM	1616	CG1	ILE A 327	-7.742	28.428	35.312	1.00	37.66	C
ATOM	1619	CD1	ILE A 327	-7.733	29.940	35.326	1.00	36.71	C
ATOM	1623	CG2	ILE A 327	-9.465	27.528	37.007	1.00	37.15	C
ATOM	1627	C	ILE A 327	-10.618	25.824	34.786	1.00	37.10	C
ATOM	1628	O	ILE A 327	-11.616	26.483	34.552	1.00	37.07	O
ATOM	1629	N	THR A 328	-10.662	24.538	35.125	1.00	36.78	N
ATOM	1631	CA	THR A 328	-11.886	23.740	35.080	1.00	36.62	C
ATOM	1633	CB	THR A 328	-11.592	22.371	34.445	1.00	36.47	C
ATOM	1635	OG1	THR A 328	-10.710	22.524	33.335	1.00	35.61	O
ATOM	1637	CG2	THR A 328	-12.848	21.766	33.860	1.00	36.27	C
ATOM	1641	C	THR A 328	-12.499	23.480	36.456	1.00	37.12	C
ATOM	1642	O	THR A 328	-12.047	22.567	37.178	1.00	37.38	O
ATOM	1643	N	PHE A 329	-13.539	24.250	36.799	1.00	37.04	N
ATOM	1645	CA	PHE A 329	-14.393	23.973	37.963	1.00	36.98	C
ATOM	1647	CB	PHE A 329	-15.369	25.106	38.138	1.00	37.16	C
ATOM	1650	CG	PHE A 329	-14.738	26.338	38.646	1.00	38.09	C
ATOM	1651	CD1	PHE A 329	-14.309	27.316	37.774	1.00	38.50	C
ATOM	1653	CE1	PHE A 329	-13.726	28.470	38.256	1.00	39.61	C
ATOM	1655	CZ	PHE A 329	-13.545	28.646	39.629	1.00	39.60	C
ATOM	1657	CE2	PHE A 329	-13.963	27.667	40.501	1.00	39.64	C
ATOM	1659	CD2	PHE A 329	-14.556	26.517	40.010	1.00	39.10	C
ATOM	1661	C	PHE A 329	-15.189	22.653	37.917	1.00	36.78	C

213

ATOM	1662	O	PHE A 329	-15.187	21.881	38.884	1.00	37.36	O
ATOM	1663	N	LEU A 330	-15.903	22.416	36.824	1.00	36.01	N
ATOM	1665	CA	LEU A 330	-16.477	21.095	36.574	1.00	35.45	C
ATOM	1667	CB	LEU A 330	-17.773	20.911	37.375	1.00	35.35	C
ATOM	1670	CG	LEU A 330	-18.838	21.996	37.204	1.00	35.24	C
ATOM	1672	CD1	LEU A 330	-20.224	21.375	37.099	1.00	34.65	C
ATOM	1676	CD2	LEU A 330	-18.771	23.012	38.342	1.00	35.02	C
ATOM	1680	C	LEU A 330	-16.689	20.911	35.067	1.00	35.15	C
ATOM	1681	O	LEU A 330	-16.214	21.729	34.284	1.00	35.20	O
ATOM	1682	N	LYS A 331	-17.370	19.842	34.653	1.00	34.67	N
ATOM	1684	CA	LYS A 331	-17.650	19.642	33.235	1.00	34.60	C
ATOM	1686	CB	LYS A 331	-18.594	18.450	32.996	1.00	34.84	C
ATOM	1689	CG	LYS A 331	-18.187	17.152	33.694	1.00	36.07	C
ATOM	1692	CD	LYS A 331	-17.697	16.071	32.717	1.00	37.53	C
ATOM	1695	CE	LYS A 331	-16.590	15.173	33.334	1.00	37.55	C
ATOM	1698	NZ	LYS A 331	-17.013	13.739	33.451	1.00	37.10	N
ATOM	1702	C	LYS A 331	-18.304	20.912	32.708	1.00	33.99	C
ATOM	1703	O	LYS A 331	-19.228	21.421	33.338	1.00	34.33	O
ATOM	1704	N	ASP A 332	-17.805	21.434	31.586	1.00	33.07	N
ATOM	1706	CA	ASP A 332	-18.426	22.566	30.872	1.00	32.35	C
ATOM	1708	CB	ASP A 332	-19.907	22.283	30.586	1.00	32.01	C
ATOM	1711	CG	ASP A 332	-20.091	21.165	29.608	1.00	31.87	C
ATOM	1712	OD1	ASP A 332	-19.396	21.164	28.574	1.00	31.76	O
ATOM	1713	OD2	ASP A 332	-20.907	20.242	29.774	1.00	32.07	O
ATOM	1714	C	ASP A 332	-18.279	23.950	31.515	1.00	31.90	C
ATOM	1715	O	ASP A 332	-18.887	24.910	31.057	1.00	32.08	O
ATOM	1716	N	PHE A 333	-17.471	24.066	32.556	1.00	31.47	N
ATOM	1718	CA	PHE A 333	-17.178	25.367	33.157	1.00	31.12	C
ATOM	1720	CB	PHE A 333	-17.792	25.486	34.552	1.00	31.25	C
ATOM	1723	CG	PHE A 333	-19.276	25.713	34.537	1.00	30.67	C
ATOM	1724	CD1	PHE A 333	-20.154	24.635	34.520	1.00	30.49	C
ATOM	1726	CE1	PHE A 333	-21.531	24.834	34.492	1.00	31.19	C
ATOM	1728	CZ	PHE A 333	-22.040	26.127	34.498	1.00	31.20	C
ATOM	1730	CE2	PHE A 333	-21.165	27.213	34.518	1.00	30.95	C
ATOM	1732	CD2	PHE A 333	-19.792	27.000	34.534	1.00	30.37	C
ATOM	1734	C	PHE A 333	-15.673	25.509	33.218	1.00	30.89	C
ATOM	1735	O	PHE A 333	-15.061	25.168	34.232	1.00	30.67	O
ATOM	1736	N	THR A 334	-15.113	25.977	32.095	1.00	30.70	N
ATOM	1738	CA	THR A 334	-13.679	26.182	31.887	1.00	30.50	C
ATOM	1740	CB	THR A 334	-13.126	25.236	30.798	1.00	30.73	C
ATOM	1742	OG1	THR A 334	-14.116	24.273	30.413	1.00	30.85	O
ATOM	1744	CG2	THR A 334	-11.959	24.400	31.335	1.00	31.05	C
ATOM	1748	C	THR A 334	-13.430	27.605	31.433	1.00	30.36	C
ATOM	1749	O	THR A 334	-14.285	28.198	30.782	1.00	30.22	O
ATOM	1750	N	TYR A 335	-12.252	28.143	31.760	1.00	30.49	N
ATOM	1752	CA	TYR A 335	-11.945	29.554	31.504	1.00	30.52	C
ATOM	1754	CB	TYR A 335	-12.281	30.417	32.744	1.00	30.50	C
ATOM	1757	CG	TYR A 335	-13.725	30.253	33.151	1.00	29.73	C

214

ATOM	1758	CD1 TYR A 335	-14.111	29.211	33.988	1.00	29.00	C
ATOM	1760	CE1 TYR A 335	-15.437	29.008	34.319	1.00	29.25	C
ATOM	1762	CZ TYR A 335	-16.404	29.848	33.813	1.00	29.43	C
ATOM	1763	OH TYR A 335	-17.728	29.640	34.157	1.00	29.83	O
ATOM	1765	CE2 TYR A 335	-16.047	30.890	32.964	1.00	29.62	C
ATOM	1767	CD2 TYR A 335	-14.711	31.082	32.634	1.00	29.34	C
ATOM	1769	C TYR A 335	-10.499	29.746	31.054	1.00	30.71	C
ATOM	1770	O TYR A 335	-9.557	29.311	31.731	1.00	30.82	O
ATOM	1771	N SER A 336	-10.355	30.397	29.900	1.00	30.62	N
ATOM	1773	CA SER A 336	-9.067	30.653	29.275	1.00	30.64	C
ATOM	1775	CB SER A 336	-9.190	30.444	27.760	1.00	30.56	C
ATOM	1778	OG SER A 336	-9.901	31.505	27.136	1.00	30.44	O
ATOM	1780	C SER A 336	-8.596	32.081	29.570	1.00	30.66	C
ATOM	1781	O SER A 336	-9.396	32.923	29.964	1.00	30.70	O
ATOM	1782	N LYS A 337	-7.309	32.351	29.345	1.00	30.48	N
ATOM	1784	CA LYS A 337	-6.727	33.684	29.534	1.00	30.56	C
ATOM	1786	CB LYS A 337	-5.314	33.747	28.927	1.00	31.14	C
ATOM	1789	CG LYS A 337	-4.155	33.988	29.928	1.00	32.14	C
ATOM	1792	CD LYS A 337	-2.765	33.637	29.325	1.00	33.30	C
ATOM	1795	CE LYS A 337	-2.704	32.176	28.795	1.00	33.77	C
ATOM	1798	NZ LYS A 337	-1.345	31.557	28.831	1.00	33.44	N
ATOM	1802	C LYS A 337	-7.569	34.772	28.894	1.00	30.26	C
ATOM	1803	O LYS A 337	-7.521	35.928	29.313	1.00	30.04	O
ATOM	1804	N ASP A 338	-8.305	34.402	27.845	1.00	30.27	N
ATOM	1806	CA ASP A 338	-9.172	35.336	27.121	1.00	29.97	C
ATOM	1808	CB ASP A 338	-9.520	34.794	25.734	1.00	30.06	C
ATOM	1811	CG ASP A 338	-8.406	34.976	24.760	1.00	29.95	C
ATOM	1812	OD1 ASP A 338	-7.236	34.956	25.216	1.00	29.17	O
ATOM	1813	OD2 ASP A 338	-8.607	35.155	23.535	1.00	30.85	O
ATOM	1814	C ASP A 338	-10.451	35.607	27.867	1.00	29.57	C
ATOM	1815	O ASP A 338	-10.830	36.759	28.065	1.00	29.03	O
ATOM	1816	N ASP A 339	-11.119	34.529	28.256	1.00	29.61	N
ATOM	1818	CA ASP A 339	-12.340	34.613	29.051	1.00	29.76	C
ATOM	1820	CB ASP A 339	-12.776	33.208	29.519	1.00	29.82	C
ATOM	1823	CG ASP A 339	-13.224	32.292	28.352	1.00	30.31	C
ATOM	1824	OD1 ASP A 339	-13.350	32.747	27.192	1.00	29.58	O
ATOM	1825	OD2 ASP A 339	-13.471	31.079	28.511	1.00	31.96	O
ATOM	1826	C ASP A 339	-12.173	35.590	30.238	1.00	29.61	C
ATOM	1827	O ASP A 339	-13.081	36.367	30.528	1.00	29.84	O
ATOM	1828	N PHE A 340	-11.004	35.578	30.885	1.00	29.50	N
ATOM	1830	CA PHE A 340	-10.685	36.523	31.970	1.00	29.32	C
ATOM	1832	CB PHE A 340	-9.293	36.251	32.549	1.00	29.08	C
ATOM	1835	CG PHE A 340	-9.238	35.138	33.575	1.00	27.85	C
ATOM	1836	CD1 PHE A 340	-9.486	33.827	33.214	1.00	26.34	C
ATOM	1838	CE1 PHE A 340	-9.412	32.806	34.123	1.00	26.55	C
ATOM	1840	CZ PHE A 340	-9.065	33.070	35.429	1.00	28.40	C
ATOM	1842	CE2 PHE A 340	-8.784	34.382	35.816	1.00	28.88	C
ATOM	1844	CD2 PHE A 340	-8.871	35.407	34.885	1.00	28.20	C

215

ATOM	1846	C	PHE A 340	-10.712	37.968	31.478	1.00	29.75	C
ATOM	1847	O	PHE A 340	-11.339	38.829	32.078	1.00	29.51	O
ATOM	1848	N	HIS A 341	-10.004	38.225	30.385	1.00	30.66	N
ATOM	1850	CA	HIS A 341	-9.967	39.556	29.772	1.00	31.34	C
ATOM	1852	CB	HIS A 341	-9.107	39.538	28.498	1.00	31.57	C
ATOM	1855	CG	HIS A 341	-8.584	40.887	28.107	1.00	33.26	C
ATOM	1856	ND1	HIS A 341	-7.731	41.618	28.914	1.00	34.11	N
ATOM	1858	CE1	HIS A 341	-7.451	42.766	28.319	1.00	35.02	C
ATOM	1860	NE2	HIS A 341	-8.087	42.805	27.156	1.00	34.36	N
ATOM	1862	CD2	HIS A 341	-8.801	41.642	26.998	1.00	33.85	C
ATOM	1864	C	HIS A 341	-11.362	40.103	29.461	1.00	31.38	C
ATOM	1865	O	HIS A 341	-11.612	41.293	29.628	1.00	31.11	O
ATOM	1866	N	ARG A 342	-12.261	39.220	29.031	1.00	31.76	N
ATOM	1868	CA	ARG A 342	-13.625	39.597	28.653	1.00	32.13	C
ATOM	1870	CB	ARG A 342	-14.335	38.433	27.951	1.00	32.29	C
ATOM	1873	CG	ARG A 342	-13.904	38.255	26.504	1.00	33.17	C
ATOM	1876	CD	ARG A 342	-13.552	36.819	26.123	1.00	34.29	C
ATOM	1879	NE	ARG A 342	-13.140	36.722	24.721	1.00	35.20	N
ATOM	1881	CZ	ARG A 342	-12.705	35.612	24.123	1.00	35.30	C
ATOM	1882	NH1	ARG A 342	-12.602	34.464	24.788	1.00	34.47	N
ATOM	1885	NH2	ARG A 342	-12.372	35.656	22.838	1.00	36.13	N
ATOM	1888	C	ARG A 342	-14.452	40.034	29.845	1.00	31.97	C
ATOM	1889	O	ARG A 342	-15.360	40.857	29.706	1.00	32.19	O
ATOM	1890	N	ALA A 343	-14.130	39.477	31.008	1.00	31.72	N
ATOM	1892	CA	ALA A 343	-14.811	39.807	32.257	1.00	31.67	C
ATOM	1894	CB	ALA A 343	-14.631	38.659	33.278	1.00	31.71	C
ATOM	1898	C	ALA A 343	-14.353	41.135	32.870	1.00	31.51	C
ATOM	1899	O	ALA A 343	-14.768	41.476	33.980	1.00	31.63	O
ATOM	1900	N	GLY A 344	-13.493	41.868	32.166	1.00	31.27	N
ATOM	1902	CA	GLY A 344	-13.075	43.197	32.587	1.00	31.26	C
ATOM	1905	C	GLY A 344	-11.712	43.224	33.244	1.00	31.18	C
ATOM	1906	O	GLY A 344	-11.175	44.296	33.535	1.00	31.19	O
ATOM	1907	N	LEU A 345	-11.147	42.041	33.459	1.00	31.06	N
ATOM	1909	CA	LEU A 345	-9.919	41.898	34.215	1.00	30.88	C
ATOM	1911	CB	LEU A 345	-9.743	40.444	34.681	1.00	30.90	C
ATOM	1914	CG	LEU A 345	-10.874	39.685	35.411	1.00	29.95	C
ATOM	1916	CD1	LEU A 345	-10.279	38.606	36.275	1.00	30.17	C
ATOM	1920	CD2	LEU A 345	-11.741	40.559	36.257	1.00	29.30	C
ATOM	1924	C	LEU A 345	-8.684	42.371	33.426	1.00	31.15	C
ATOM	1925	O	LEU A 345	-8.472	42.013	32.263	1.00	31.10	O
ATOM	1926	N	GLN A 346	-7.915	43.232	34.084	1.00	31.43	N
ATOM	1928	CA	GLN A 346	-6.570	43.634	33.675	1.00	31.50	C
ATOM	1930	CB	GLN A 346	-5.902	44.374	34.841	1.00	31.89	C
ATOM	1933	CG	GLN A 346	-6.224	45.842	34.993	1.00	31.90	C
ATOM	1936	CD	GLN A 346	-5.473	46.429	36.181	1.00	31.13	C
ATOM	1937	OE1	GLN A 346	-5.278	45.749	37.207	1.00	27.79	O
ATOM	1938	NE2	GLN A 346	-5.031	47.682	36.040	1.00	31.01	N
ATOM	1941	C	GLN A 346	-5.581	42.505	33.303	1.00	31.21	C

216

ATOM	1942	O	GLN A 346	-5.642	41.379	33.823	1.00	31.24	O
ATOM	1943	N	VAL A 347	-4.626	42.890	32.450	1.00	30.55	N
ATOM	1945	CA	VAL A 347	-3.417	42.125	32.115	1.00	29.63	C
ATOM	1947	CB	VAL A 347	-2.625	42.877	30.995	1.00	29.42	C
ATOM	1949	CG1	VAL A 347	-1.342	42.155	30.655	1.00	28.92	C
ATOM	1953	CG2	VAL A 347	-3.512	43.083	29.740	1.00	29.39	C
ATOM	1957	C	VAL A 347	-2.513	41.962	33.350	1.00	28.89	C
ATOM	1958	O	VAL A 347	-1.935	40.899	33.591	1.00	28.20	O
ATOM	1959	N	GLU A 348	-2.406	43.050	34.109	1.00	28.28	N
ATOM	1961	CA	GLU A 348	-1.617	43.123	35.329	1.00	28.04	C
ATOM	1963	CB	GLU A 348	-1.819	44.497	35.988	1.00	28.17	C
ATOM	1966	CG	GLU A 348	-1.084	45.660	35.318	1.00	28.94	C
ATOM	1969	CD	GLU A 348	-1.955	46.586	34.455	1.00	30.20	C
ATOM	1970	OE1	GLU A 348	-3.106	46.221	34.132	1.00	31.40	O
ATOM	1971	OE2	GLU A 348	-1.478	47.692	34.076	1.00	29.15	O
ATOM	1972	C	GLU A 348	-1.923	41.997	36.337	1.00	27.64	C
ATOM	1973	O	GLU A 348	-1.036	41.630	37.096	1.00	27.84	O
ATOM	1974	N	PHE A 349	-3.159	41.461	36.323	1.00	26.79	N
ATOM	1976	CA	PHE A 349	-3.615	40.339	37.183	1.00	25.66	C
ATOM	1978	CB	PHE A 349	-5.045	40.667	37.659	1.00	25.81	C
ATOM	1981	CG	PHE A 349	-5.614	39.738	38.709	1.00	24.39	C
ATOM	1982	CD1	PHE A 349	-4.848	39.253	39.751	1.00	25.08	C
ATOM	1984	CE1	PHE A 349	-5.424	38.413	40.750	1.00	26.06	C
ATOM	1986	CZ	PHE A 349	-6.773	38.075	40.682	1.00	24.63	C
ATOM	1988	CE2	PHE A 349	-7.545	38.567	39.648	1.00	24.62	C
ATOM	1990	CD2	PHE A 349	-6.963	39.401	38.672	1.00	24.98	C
ATOM	1992	C	PHE A 349	-3.599	38.948	36.483	1.00	25.03	C
ATOM	1993	O	PHE A 349	-3.144	37.955	37.067	1.00	24.41	O
ATOM	1994	N	ILE A 350	-4.074	38.889	35.235	1.00	24.18	N
ATOM	1996	CA	ILE A 350	-4.278	37.609	34.540	1.00	23.99	C
ATOM	1998	CB	ILE A 350	-4.933	37.800	33.128	1.00	24.26	C
ATOM	2000	CG1	ILE A 350	-6.324	38.448	33.230	1.00	24.09	C
ATOM	2003	CD1	ILE A 350	-6.874	39.041	31.931	1.00	22.81	C
ATOM	2007	CG2	ILE A 350	-5.044	36.428	32.384	1.00	23.98	C
ATOM	2011	C	ILE A 350	-3.007	36.795	34.367	1.00	24.02	C
ATOM	2012	O	ILE A 350	-3.006	35.599	34.602	1.00	23.50	O
ATOM	2013	N	ASN A 351	-1.939	37.437	33.900	1.00	24.57	N
ATOM	2015	CA	ASN A 351	-0.691	36.723	33.604	1.00	24.66	C
ATOM	2017	CB	ASN A 351	0.256	37.568	32.756	1.00	24.65	C
ATOM	2020	CG	ASN A 351	-0.263	37.755	31.365	1.00	24.79	C
ATOM	2021	OD1	ASN A 351	-0.740	36.809	30.730	1.00	25.11	O
ATOM	2022	ND2	ASN A 351	-0.222	38.982	30.892	1.00	24.98	N
ATOM	2025	C	ASN A 351	0.012	36.151	34.830	1.00	24.62	C
ATOM	2026	O	ASN A 351	0.413	34.991	34.802	1.00	24.84	O
ATOM	2027	N	PRO A 352	0.185	36.928	35.896	1.00	24.40	N
ATOM	2028	CA	PRO A 352	0.565	36.314	37.173	1.00	24.15	C
ATOM	2030	CB	PRO A 352	0.393	37.454	38.176	1.00	23.99	C
ATOM	2033	CG	PRO A 352	0.645	38.687	37.385	1.00	23.81	C

217

ATOM	2036	CD	PRO A 352	0.145	38.402	35.981	1.00	24.27	C
ATOM	2039	C	PRO A 352	-0.305	35.097	37.501	1.00	24.08	C
ATOM	2040	O	PRO A 352	0.268	34.092	37.910	1.00	24.00	O
ATOM	2041	N	ILE A 353	-1.622	35.160	37.281	1.00	24.06	N
ATOM	2043	CA	ILE A 353	-2.513	34.032	37.611	1.00	24.11	C
ATOM	2045	CB	ILE A 353	-4.027	34.332	37.278	1.00	23.92	C
ATOM	2047	CG1	ILE A 353	-4.660	35.407	38.154	1.00	24.70	C
ATOM	2050	CD1	ILE A 353	-3.813	35.848	39.332	1.00	28.00	C
ATOM	2054	CG2	ILE A 353	-4.852	33.114	37.471	1.00	24.44	C
ATOM	2058	C	ILE A 353	-2.070	32.773	36.862	1.00	23.97	C
ATOM	2059	O	ILE A 353	-1.991	31.685	37.436	1.00	23.72	O
ATOM	2060	N	PHE A 354	-1.780	32.923	35.576	1.00	23.97	N
ATOM	2062	CA	PHE A 354	-1.463	31.771	34.734	1.00	23.93	C
ATOM	2064	CB	PHE A 354	-1.866	32.054	33.272	1.00	23.88	C
ATOM	2067	CG	PHE A 354	-3.334	31.845	33.018	1.00	24.57	C
ATOM	2068	CD1	PHE A 354	-4.239	32.879	33.188	1.00	25.04	C
ATOM	2070	CE1	PHE A 354	-5.604	32.668	32.990	1.00	25.36	C
ATOM	2072	CZ	PHE A 354	-6.070	31.415	32.643	1.00	25.16	C
ATOM	2074	CE2	PHE A 354	-5.180	30.369	32.490	1.00	25.40	C
ATOM	2076	CD2	PHE A 354	-3.819	30.585	32.680	1.00	25.46	C
ATOM	2078	C	PHE A 354	-0.001	31.293	34.882	1.00	23.75	C
ATOM	2079	O	PHE A 354	0.270	30.083	34.804	1.00	23.50	O
ATOM	2080	N	GLU A 355	0.917	32.232	35.123	1.00	23.45	N
ATOM	2082	CA	GLU A 355	2.310	31.906	35.396	1.00	23.77	C
ATOM	2084	CB	GLU A 355	3.191	33.166	35.490	1.00	24.05	C
ATOM	2087	CG	GLU A 355	4.057	33.423	34.254	1.00	25.53	C
ATOM	2090	CD	GLU A 355	3.785	34.762	33.557	1.00	26.68	C
ATOM	2091	OE1	GLU A 355	4.011	34.839	32.322	1.00	23.23	O
ATOM	2092	OE2	GLU A 355	3.366	35.736	34.252	1.00	28.60	O
ATOM	2093	C	GLU A 355	2.387	31.116	36.691	1.00	23.77	C
ATOM	2094	O	GLU A 355	2.991	30.045	36.724	1.00	24.34	O
ATOM	2095	N	PHE A 356	1.771	31.641	37.751	1.00	23.44	N
ATOM	2097	CA	PHE A 356	1.651	30.923	39.019	1.00	23.10	C
ATOM	2099	CB	PHE A 356	0.796	31.718	40.027	1.00	22.91	C
ATOM	2102	CG	PHE A 356	0.654	31.026	41.356	1.00	22.02	C
ATOM	2103	CD1	PHE A 356	1.719	30.958	42.226	1.00	20.17	C
ATOM	2105	CE1	PHE A 356	1.597	30.305	43.438	1.00	19.63	C
ATOM	2107	CZ	PHE A 356	0.424	29.682	43.779	1.00	19.39	C
ATOM	2109	CE2	PHE A 356	-0.629	29.712	42.920	1.00	19.39	C
ATOM	2111	CD2	PHE A 356	-0.520	30.384	41.708	1.00	20.33	C
ATOM	2113	C	PHE A 356	1.079	29.496	38.863	1.00	23.18	C
ATOM	2114	O	PHE A 356	1.585	28.567	39.485	1.00	22.73	O
ATOM	2115	N	SER A 357	0.036	29.340	38.047	1.00	23.58	N
ATOM	2117	CA	SER A 357	-0.638	28.052	37.853	1.00	24.38	C
ATOM	2119	CB	SER A 357	-1.936	28.239	37.079	1.00	24.48	C
ATOM	2122	OG	SER A 357	-2.976	28.664	37.937	1.00	26.05	O
ATOM	2124	C	SER A 357	0.200	27.009	37.128	1.00	24.85	C
ATOM	2125	O	SER A 357	0.182	25.831	37.494	1.00	24.59	O

218

ATOM	2126	N	ARG A 358	0.917	27.425	36.088	1.00	25.95	N
ATOM	2128	CA	ARG A 358	1.782	26.483	35.367	1.00	27.12	C
ATOM	2130	CB	ARG A 358	1.976	26.867	33.880	1.00	27.46	C
ATOM	2133	CG	ARG A 358	3.024	27.913	33.582	1.00	29.56	C
ATOM	2136	CD	ARG A 358	3.154	28.226	32.100	1.00	31.01	C
ATOM	2139	NE	ARG A 358	2.012	28.996	31.601	1.00	32.84	N
ATOM	2141	CZ	ARG A 358	1.958	30.329	31.508	1.00	33.59	C
ATOM	2142	NH1	ARG A 358	2.985	31.089	31.893	1.00	33.79	N
ATOM	2145	NH2	ARG A 358	0.857	30.907	31.028	1.00	33.55	N
ATOM	2148	C	ARG A 358	3.103	26.224	36.112	1.00	27.17	C
ATOM	2149	O	ARG A 358	3.757	25.196	35.886	1.00	27.45	O
ATOM	2150	N	ALA A 359	3.460	27.129	37.022	1.00	27.10	N
ATOM	2152	CA	ALA A 359	4.512	26.874	37.990	1.00	27.03	C
ATOM	2154	CB	ALA A 359	4.853	28.144	38.735	1.00	27.05	C
ATOM	2158	C	ALA A 359	4.075	25.781	38.969	1.00	27.46	C
ATOM	2159	O	ALA A 359	4.809	24.807	39.187	1.00	27.65	O
ATOM	2160	N	MET A 360	2.880	25.933	39.546	1.00	27.66	N
ATOM	2162	CA	MET A 360	2.373	24.975	40.525	1.00	28.05	C
ATOM	2164	CB	MET A 360	0.987	25.384	41.046	1.00	28.08	C
ATOM	2167	CG	MET A 360	0.942	26.547	42.071	1.00	27.69	C
ATOM	2170	SD	MET A 360	1.915	26.352	43.592	1.00	27.13	S
ATOM	2171	CE	MET A 360	1.595	24.685	44.069	1.00	28.65	C
ATOM	2175	C	MET A 360	2.291	23.574	39.927	1.00	28.76	C
ATOM	2176	O	MET A 360	2.481	22.576	40.622	1.00	28.81	O
ATOM	2177	N	ARG A 361	2.014	23.497	38.632	1.00	29.78	N
ATOM	2179	CA	ARG A 361	1.901	22.209	37.987	1.00	30.55	C
ATOM	2181	CB	ARG A 361	1.279	22.306	36.595	1.00	31.44	C
ATOM	2184	CG	ARG A 361	0.297	21.164	36.300	1.00	34.83	C
ATOM	2187	CD	ARG A 361	-0.993	21.243	37.162	1.00	38.23	C
ATOM	2190	NE	ARG A 361	-1.927	20.156	36.869	1.00	40.93	N
ATOM	2192	CZ	ARG A 361	-2.863	19.711	37.706	1.00	43.79	C
ATOM	2193	NH1	ARG A 361	-3.008	20.246	38.929	1.00	44.27	N
ATOM	2196	NH2	ARG A 361	-3.661	18.710	37.323	1.00	44.88	N
ATOM	2199	C	ARG A 361	3.246	21.565	37.896	1.00	30.15	C
ATOM	2200	O	ARG A 361	3.359	20.371	38.107	1.00	30.69	O
ATOM	2201	N	ARG A 362	4.276	22.337	37.585	1.00	29.71	N
ATOM	2203	CA	ARG A 362	5.604	21.754	37.443	1.00	29.44	C
ATOM	2205	CB	ARG A 362	6.588	22.765	36.849	1.00	29.94	C
ATOM	2208	CG	ARG A 362	6.363	23.028	35.349	1.00	31.37	C
ATOM	2211	CD	ARG A 362	7.317	24.070	34.731	1.00	33.77	C
ATOM	2214	NE	ARG A 362	6.811	25.447	34.850	1.00	35.63	N
ATOM	2216	CZ	ARG A 362	7.316	26.403	35.645	1.00	36.81	C
ATOM	2217	NH1	ARG A 362	8.367	26.174	36.434	1.00	36.78	N
ATOM	2220	NH2	ARG A 362	6.744	27.610	35.655	1.00	37.45	N
ATOM	2223	C	ARG A 362	6.099	21.209	38.776	1.00	28.50	C
ATOM	2224	O	ARG A 362	7.013	20.396	38.805	1.00	28.18	O
ATOM	2225	N	LEU A 363	5.483	21.656	39.872	1.00	27.78	N
ATOM	2227	CA	LEU A 363	5.747	21.103	41.203	1.00	27.03	C

219

ATOM	2229	CB	LEU A 363	5.261	22.052	42.294	1.00	27.15	C
ATOM	2232	CG	LEU A 363	6.317	22.968	42.901	1.00	27.99	C
ATOM	2234	CD1	LEU A 363	5.718	23.584	44.144	1.00	28.97	C
ATOM	2238	CD2	LEU A 363	7.639	22.267	43.221	1.00	27.80	C
ATOM	2242	C	LEU A 363	5.086	19.760	41.414	1.00	26.11	C
ATOM	2243	O	LEU A 363	5.516	18.993	42.264	1.00	25.45	O
ATOM	2244	N	GLY A 364	3.998	19.520	40.683	1.00	25.50	N
ATOM	2246	CA	GLY A 364	3.311	18.232	40.658	1.00	24.98	C
ATOM	2249	C	GLY A 364	2.745	17.795	42.004	1.00	24.25	C
ATOM	2250	O	GLY A 364	2.925	16.642	42.406	1.00	23.67	O
ATOM	2251	N	LEU A 365	2.074	18.711	42.703	1.00	23.67	N
ATOM	2253	CA	LEU A 365	1.633	18.436	44.064	1.00	23.27	C
ATOM	2255	CB	LEU A 365	1.135	19.691	44.766	1.00	23.36	C
ATOM	2258	CG	LEU A 365	2.081	20.897	44.888	1.00	23.89	C
ATOM	2260	CD1	LEU A 365	1.566	21.799	46.021	1.00	24.37	C
ATOM	2264	CD2	LEU A 365	3.522	20.500	45.144	1.00	23.24	C
ATOM	2268	C	LEU A 365	0.519	17.450	43.954	1.00	22.78	C
ATOM	2269	O	LEU A 365	-0.112	17.370	42.916	1.00	22.26	O
ATOM	2270	N	ASP A 366	0.308	16.674	45.004	1.00	22.71	N
ATOM	2272	CA	ASP A 366	-0.795	15.727	45.029	1.00	22.95	C
ATOM	2274	CB	ASP A 366	-0.336	14.301	45.373	1.00	23.14	C
ATOM	2277	CG	ASP A 366	0.253	14.182	46.751	1.00	23.28	C
ATOM	2278	OD1	ASP A 366	-0.120	14.985	47.633	1.00	23.31	O
ATOM	2279	OD2	ASP A 366	1.106	13.311	47.033	1.00	22.90	O
ATOM	2280	C	ASP A 366	-1.800	16.272	45.999	1.00	22.93	C
ATOM	2281	O	ASP A 366	-1.631	17.377	46.495	1.00	23.08	O
ATOM	2282	N	ASP A 367	-2.845	15.515	46.268	1.00	22.85	N
ATOM	2284	CA	ASP A 367	-3.944	16.038	47.053	1.00	23.13	C
ATOM	2286	CB	ASP A 367	-5.094	15.076	46.957	1.00	23.79	C
ATOM	2289	CG	ASP A 367	-5.767	15.134	45.615	1.00	26.26	C
ATOM	2290	OD1	ASP A 367	-5.410	16.052	44.832	1.00	29.21	O
ATOM	2291	OD2	ASP A 367	-6.672	14.327	45.278	1.00	29.18	O
ATOM	2292	C	ASP A 367	-3.604	16.285	48.513	1.00	22.72	C
ATOM	2293	O	ASP A 367	-4.091	17.240	49.098	1.00	23.37	O
ATOM	2294	N	ALA A 368	-2.782	15.427	49.105	1.00	22.13	N
ATOM	2296	CA	ALA A 368	-2.327	15.625	50.473	1.00	21.71	C
ATOM	2298	CB	ALA A 368	-1.598	14.398	50.954	1.00	21.22	C
ATOM	2302	C	ALA A 368	-1.434	16.880	50.618	1.00	22.03	C
ATOM	2303	O	ALA A 368	-1.474	17.563	51.641	1.00	22.09	O
ATOM	2304	N	GLU A 369	-0.628	17.179	49.599	1.00	21.94	N
ATOM	2306	CA	GLU A 369	0.285	18.310	49.650	1.00	21.54	C
ATOM	2308	CB	GLU A 369	1.361	18.159	48.582	1.00	21.65	C
ATOM	2311	CG	GLU A 369	2.375	17.068	48.907	1.00	21.25	C
ATOM	2314	CD	GLU A 369	3.307	16.706	47.741	1.00	22.31	C
ATOM	2315	OE1	GLU A 369	4.524	16.482	47.989	1.00	24.33	O
ATOM	2316	OE2	GLU A 369	2.847	16.614	46.580	1.00	19.72	O
ATOM	2317	C	GLU A 369	-0.484	19.627	49.512	1.00	21.69	C
ATOM	2318	O	GLU A 369	-0.353	20.493	50.340	1.00	21.18	O

220

ATOM	2319	N	TYR A 370	-1.299	19.767	48.473	1.00	22.31	N
ATOM	2321	CA	TYR A 370	-2.213	20.909	48.342	1.00	22.52	C
ATOM	2323	CB	TYR A 370	-3.228	20.707	47.191	1.00	22.75	C
ATOM	2326	CG	TYR A 370	-2.802	21.366	45.907	1.00	25.00	C
ATOM	2327	CD1	TYR A 370	-2.414	20.594	44.801	1.00	27.31	C
ATOM	2329	CE1	TYR A 370	-1.994	21.185	43.605	1.00	27.13	C
ATOM	2331	CZ	TYR A 370	-1.956	22.573	43.495	1.00	28.06	C
ATOM	2332	OH	TYR A 370	-1.540	23.144	42.305	1.00	28.74	O
ATOM	2334	CE2	TYR A 370	-2.333	23.373	44.580	1.00	27.58	C
ATOM	2336	CD2	TYR A 370	-2.767	22.756	45.786	1.00	26.97	C
ATOM	2338	C	TYR A 370	-2.997	21.160	49.616	1.00	22.24	C
ATOM	2339	O	TYR A 370	-3.099	22.293	50.059	1.00	22.15	O
ATOM	2340	N	ALA A 371	-3.605	20.120	50.179	1.00	22.32	N
ATOM	2342	CA	ALA A 371	-4.424	20.293	51.395	1.00	22.38	C
ATOM	2344	CB	ALA A 371	-5.081	18.983	51.810	1.00	22.91	C
ATOM	2348	C	ALA A 371	-3.601	20.842	52.558	1.00	22.05	C
ATOM	2349	O	ALA A 371	-4.029	21.783	53.221	1.00	22.36	O
ATOM	2350	N	LEU A 372	-2.423	20.264	52.788	1.00	21.19	N
ATOM	2352	CA	LEU A 372	-1.548	20.728	53.842	1.00	20.94	C
ATOM	2354	CB	LEU A 372	-0.337	19.796	54.003	1.00	20.87	C
ATOM	2357	CG	LEU A 372	-0.525	18.493	54.795	1.00	21.04	C
ATOM	2359	CD1	LEU A 372	0.647	17.533	54.603	1.00	21.62	C
ATOM	2363	CD2	LEU A 372	-0.718	18.807	56.263	1.00	20.65	C
ATOM	2367	C	LEU A 372	-1.076	22.161	53.583	1.00	21.01	C
ATOM	2368	O	LEU A 372	-0.946	22.924	54.517	1.00	21.41	O
ATOM	2369	N	LEU A 373	-0.814	22.537	52.330	1.00	20.84	N
ATOM	2371	CA	LEU A 373	-0.300	23.880	52.027	1.00	20.73	C
ATOM	2373	CB	LEU A 373	0.039	24.071	50.541	1.00	20.52	C
ATOM	2376	CG	LEU A 373	1.497	24.213	50.098	1.00	23.13	C
ATOM	2378	CD1	LEU A 373	1.572	24.764	48.623	1.00	24.98	C
ATOM	2382	CD2	LEU A 373	2.362	25.070	51.047	1.00	23.54	C
ATOM	2386	C	LEU A 373	-1.389	24.855	52.418	1.00	20.65	C
ATOM	2387	O	LEU A 373	-1.126	25.974	52.905	1.00	20.59	O
ATOM	2388	N	ILE A 374	-2.622	24.424	52.192	1.00	20.20	N
ATOM	2390	CA	ILE A 374	-3.734	25.283	52.438	1.00	20.59	C
ATOM	2392	CB	ILE A 374	-4.983	24.733	51.747	1.00	21.07	C
ATOM	2394	CG1	ILE A 374	-4.884	25.002	50.231	1.00	21.83	C
ATOM	2397	CD1	ILE A 374	-5.961	24.254	49.403	1.00	21.74	C
ATOM	2401	CG2	ILE A 374	-6.275	25.365	52.303	1.00	20.76	C
ATOM	2405	C	ILE A 374	-3.886	25.464	53.945	1.00	20.73	C
ATOM	2406	O	ILE A 374	-4.139	26.567	54.424	1.00	20.91	O
ATOM	2407	N	ALA A 375	-3.702	24.393	54.697	1.00	20.78	N
ATOM	2409	CA	ALA A 375	-3.782	24.473	56.148	1.00	20.75	C
ATOM	2411	CB	ALA A 375	-3.617	23.067	56.772	1.00	20.83	C
ATOM	2415	C	ALA A 375	-2.715	25.434	56.682	1.00	20.38	C
ATOM	2416	O	ALA A 375	-2.988	26.241	57.574	1.00	20.16	O
ATOM	2417	N	ILE A 376	-1.517	25.336	56.113	1.00	19.84	N
ATOM	2419	CA	ILE A 376	-0.377	26.141	56.543	1.00	20.41	C

221

ATOM	2421	CB	ILE A 376	0.897	25.644	55.826	1.00	20.33	C
ATOM	2423	CG1	ILE A 376	1.370	24.310	56.403	1.00	19.99	C
ATOM	2426	CD1	ILE A 376	2.304	23.568	55.506	1.00	20.71	C
ATOM	2430	CG2	ILE A 376	1.986	26.677	55.945	1.00	20.98	C
ATOM	2434	C	ILE A 376	-0.600	27.647	56.236	1.00	20.55	C
ATOM	2435	O	ILE A 376	-0.224	28.543	57.002	1.00	19.68	O
ATOM	2436	N	ASN A 377	-1.225	27.878	55.088	1.00	20.81	N
ATOM	2438	CA	ASN A 377	-1.513	29.200	54.614	1.00	21.04	C
ATOM	2440	CB	ASN A 377	-1.989	29.136	53.153	1.00	21.22	C
ATOM	2443	CG	ASN A 377	-2.338	30.505	52.598	1.00	22.27	C
ATOM	2444	OD1	ASN A 377	-3.408	31.081	52.914	1.00	24.56	O
ATOM	2445	ND2	ASN A 377	-1.448	31.043	51.798	1.00	20.25	N
ATOM	2448	C	ASN A 377	-2.541	29.862	55.512	1.00	20.84	C
ATOM	2449	O	ASN A 377	-2.489	31.089	55.740	1.00	20.38	O
ATOM	2450	N	ILE A 378	-3.462	29.053	56.034	1.00	21.08	N
ATOM	2452	CA	ILE A 378	-4.529	29.562	56.892	1.00	21.21	C
ATOM	2454	CB	ILE A 378	-5.634	28.531	57.127	1.00	21.70	C
ATOM	2456	CG1	ILE A 378	-6.486	28.327	55.853	1.00	20.73	C
ATOM	2459	CD1	ILE A 378	-7.264	27.065	55.878	1.00	19.57	C
ATOM	2463	CG2	ILE A 378	-6.544	28.984	58.301	1.00	22.97	C
ATOM	2467	C	ILE A 378	-3.961	30.003	58.203	1.00	21.49	C
ATOM	2468	O	ILE A 378	-4.394	31.034	58.713	1.00	21.85	O
ATOM	2469	N	PHE A 379	-2.974	29.263	58.733	1.00	21.69	N
ATOM	2471	CA	PHE A 379	-2.409	29.556	60.067	1.00	21.80	C
ATOM	2473	CB	PHE A 379	-2.147	28.276	60.911	1.00	21.76	C
ATOM	2476	CG	PHE A 379	-3.395	27.467	61.220	1.00	20.36	C
ATOM	2477	CD1	PHE A 379	-3.511	26.143	60.786	1.00	18.89	C
ATOM	2479	CE1	PHE A 379	-4.645	25.422	61.064	1.00	19.73	C
ATOM	2481	CZ	PHE A 379	-5.682	25.999	61.769	1.00	18.74	C
ATOM	2483	CE2	PHE A 379	-5.569	27.309	62.205	1.00	19.76	C
ATOM	2485	CD2	PHE A 379	-4.436	28.028	61.937	1.00	18.90	C
ATOM	2487	C	PHE A 379	-1.139	30.352	59.931	1.00	22.55	C
ATOM	2488	O	PHE A 379	-0.090	29.996	60.482	1.00	22.46	O
ATOM	2489	N	SER A 380	-1.243	31.458	59.209	1.00	23.76	N
ATOM	2491	CA	SER A 380	-0.127	32.382	59.072	1.00	24.35	C
ATOM	2493	CB	SER A 380	-0.124	33.029	57.692	1.00	24.13	C
ATOM	2496	OG	SER A 380	-0.345	32.064	56.683	1.00	23.05	O
ATOM	2498	C	SER A 380	-0.309	33.418	60.160	1.00	25.51	C
ATOM	2499	O	SER A 380	-1.213	34.264	60.083	1.00	26.09	O
ATOM	2500	N	ALA A 381	0.531	33.340	61.188	1.00	26.69	N
ATOM	2502	CA	ALA A 381	0.394	34.212	62.362	1.00	27.65	C
ATOM	2504	CB	ALA A 381	1.430	33.806	63.463	1.00	27.30	C
ATOM	2508	C	ALA A 381	0.475	35.749	62.051	1.00	28.30	C
ATOM	2509	O	ALA A 381	0.037	36.573	62.889	1.00	28.65	O
ATOM	2510	N	ASP A 382	0.996	36.122	60.867	1.00	28.16	N
ATOM	2512	CA	ASP A 382	1.318	37.531	60.572	1.00	28.54	C
ATOM	2514	CB	ASP A 382	2.667	37.575	59.922	1.00	28.78	C
ATOM	2517	CG	ASP A 382	2.584	37.247	58.492	1.00	29.48	C

222

ATOM	2518	OD1 ASP A 382	2.104	36.136	58.165	1.00	26.57	O
ATOM	2519	OD2 ASP A 382	2.930	38.082	57.641	1.00	34.31	O
ATOM	2520	C ASP A 382	0.313	38.290	59.662	1.00	28.41	C
ATOM	2521	O ASP A 382	0.647	39.262	58.988	1.00	29.03	O
ATOM	2522	N ARG A 383	-0.926	37.830	59.647	1.00	27.87	N
ATOM	2524	CA ARG A 383	-1.977	38.477	58.903	1.00	26.83	C
ATOM	2526	CB ARG A 383	-3.180	37.536	58.794	1.00	26.90	C
ATOM	2529	CG ARG A 383	-2.886	36.172	58.168	1.00	24.71	C
ATOM	2532	CD ARG A 383	-2.247	36.284	56.835	1.00	22.46	C
ATOM	2535	NE ARG A 383	-2.429	35.078	56.039	1.00	22.63	N
ATOM	2537	CZ ARG A 383	-2.277	35.011	54.710	1.00	21.78	C
ATOM	2538	NH1 ARG A 383	-1.911	36.096	54.033	1.00	22.59	N
ATOM	2541	NH2 ARG A 383	-2.485	33.864	54.054	1.00	20.10	N
ATOM	2544	C ARG A 383	-2.364	39.711	59.685	1.00	26.73	C
ATOM	2545	O ARG A 383	-2.115	39.785	60.871	1.00	26.44	O
ATOM	2546	N PRO A 384	-2.949	40.699	59.029	1.00	26.91	N
ATOM	2547	CA PRO A 384	-3.443	41.871	59.740	1.00	26.93	C
ATOM	2549	CB PRO A 384	-4.153	42.678	58.656	1.00	26.92	C
ATOM	2552	CG PRO A 384	-3.746	42.114	57.368	1.00	26.82	C
ATOM	2555	CD PRO A 384	-3.150	40.806	57.577	1.00	27.16	C
ATOM	2558	C PRO A 384	-4.441	41.457	60.795	1.00	26.78	C
ATOM	2559	O PRO A 384	-5.121	40.441	60.606	1.00	26.63	O
ATOM	2560	N ASN A 385	-4.493	42.233	61.874	1.00	26.52	N
ATOM	2562	CA ASN A 385	-5.530	42.137	62.905	1.00	26.44	C
ATOM	2564	CB ASN A 385	-6.920	42.470	62.317	1.00	26.43	C
ATOM	2567	CG ASN A 385	-7.051	43.921	61.879	1.00	25.91	C
ATOM	2568	OD1 ASN A 385	-6.402	44.828	62.419	1.00	25.48	O
ATOM	2569	ND2 ASN A 385	-7.913	44.148	60.907	1.00	24.36	N
ATOM	2572	C ASN A 385	-5.600	40.827	63.702	1.00	26.20	C
ATOM	2573	O ASN A 385	-6.591	40.589	64.387	1.00	26.57	O
ATOM	2574	N VAL A 386	-4.553	40.007	63.661	1.00	25.70	N
ATOM	2576	CA VAL A 386	-4.521	38.785	64.451	1.00	25.44	C
ATOM	2578	CB VAL A 386	-3.567	37.770	63.833	1.00	25.52	C
ATOM	2580	CG1 VAL A 386	-3.157	36.694	64.848	1.00	26.16	C
ATOM	2584	CG2 VAL A 386	-4.232	37.137	62.635	1.00	25.40	C
ATOM	2588	C VAL A 386	-4.149	39.078	65.905	1.00	25.38	C
ATOM	2589	O VAL A 386	-3.061	39.545	66.197	1.00	25.07	O
ATOM	2590	N GLN A 387	-5.073	38.791	66.811	1.00	25.79	N
ATOM	2592	CA GLN A 387	-4.911	39.093	68.229	1.00	26.17	C
ATOM	2594	CB GLN A 387	-6.295	39.216	68.904	1.00	26.48	C
ATOM	2597	CG GLN A 387	-7.088	40.481	68.475	1.00	28.11	C
ATOM	2600	CD GLN A 387	-8.426	40.650	69.216	1.00	31.36	C
ATOM	2601	OE1 GLN A 387	-8.449	40.881	70.443	1.00	31.98	O
ATOM	2602	NE2 GLN A 387	-9.542	40.555	68.471	1.00	32.05	N
ATOM	2605	C GLN A 387	-4.007	38.089	68.953	1.00	25.93	C
ATOM	2606	O GLN A 387	-3.273	38.469	69.861	1.00	25.80	O
ATOM	2607	N GLU A 388	-4.033	36.827	68.517	1.00	25.99	N
ATOM	2609	CA GLU A 388	-3.272	35.729	69.146	1.00	26.03	C

223

ATOM	2611	CB	GLU A 388	-4.235	34.652	69.672	1.00	26.23	C
ATOM	2614	CG	GLU A 388	-5.309	35.179	70.609	1.00	27.00	C
ATOM	2617	CD	GLU A 388	-5.828	34.133	71.581	1.00	28.08	C
ATOM	2618	OE1	GLU A 388	-6.191	33.011	71.159	1.00	28.82	O
ATOM	2619	OE2	GLU A 388	-5.901	34.448	72.780	1.00	29.76	O
ATOM	2620	C	GLU A 388	-2.269	35.065	68.192	1.00	25.65	C
ATOM	2621	O	GLU A 388	-2.452	33.901	67.811	1.00	25.73	O
ATOM	2622	N	PRO A 389	-1.220	35.789	67.800	1.00	25.08	N
ATOM	2623	CA	PRO A 389	-0.245	35.269	66.836	1.00	24.68	C
ATOM	2625	CB	PRO A 389	0.675	36.475	66.599	1.00	24.77	C
ATOM	2628	CG	PRO A 389	0.514	37.324	67.759	1.00	24.58	C
ATOM	2631	CD	PRO A 389	-0.897	37.167	68.208	1.00	24.91	C
ATOM	2634	C	PRO A 389	0.559	34.059	67.322	1.00	24.43	C
ATOM	2635	O	PRO A 389	0.934	33.206	66.520	1.00	24.28	O
ATOM	2636	N	GLY A 390	0.835	34.001	68.620	1.00	24.41	N
ATOM	2638	CA	GLY A 390	1.469	32.842	69.227	1.00	24.29	C
ATOM	2641	C	GLY A 390	0.642	31.565	69.086	1.00	24.54	C
ATOM	2642	O	GLY A 390	1.192	30.507	68.758	1.00	24.52	O
ATOM	2643	N	ARG A 391	-0.674	31.649	69.311	1.00	24.39	N
ATOM	2645	CA	ARG A 391	-1.537	30.480	69.177	1.00	24.60	C
ATOM	2647	CB	ARG A 391	-2.937	30.728	69.739	1.00	24.91	C
ATOM	2650	CG	ARG A 391	-2.931	31.219	71.174	1.00	28.18	C
ATOM	2653	CD	ARG A 391	-4.110	30.745	72.041	1.00	32.93	C
ATOM	2656	NE	ARG A 391	-5.295	30.355	71.260	1.00	36.71	N
ATOM	2658	CZ	ARG A 391	-5.933	29.178	71.363	1.00	41.04	C
ATOM	2659	NH1	ARG A 391	-5.504	28.232	72.215	1.00	43.07	N
ATOM	2662	NH2	ARG A 391	-7.015	28.936	70.607	1.00	40.78	N
ATOM	2665	C	ARG A 391	-1.640	30.049	67.726	1.00	24.04	C
ATOM	2666	O	ARG A 391	-1.743	28.855	67.445	1.00	24.57	O
ATOM	2667	N	VAL A 392	-1.610	31.004	66.802	1.00	23.34	N
ATOM	2669	CA	VAL A 392	-1.699	30.675	65.385	1.00	22.50	C
ATOM	2671	CB	VAL A 392	-2.007	31.906	64.539	1.00	22.35	C
ATOM	2673	CG1	VAL A 392	-1.875	31.590	63.059	1.00	21.93	C
ATOM	2677	CG2	VAL A 392	-3.413	32.420	64.865	1.00	22.07	C
ATOM	2681	C	VAL A 392	-0.410	30.014	64.928	1.00	22.29	C
ATOM	2682	O	VAL A 392	-0.459	29.037	64.197	1.00	22.06	O
ATOM	2683	N	GLU A 393	0.741	30.505	65.375	1.00	22.38	N
ATOM	2685	CA	GLU A 393	2.000	29.902	64.929	1.00	23.18	C
ATOM	2687	CB	GLU A 393	3.233	30.735	65.318	1.00	23.56	C
ATOM	2690	CG	GLU A 393	4.539	30.125	64.805	1.00	24.92	C
ATOM	2693	CD	GLU A 393	5.749	31.038	64.954	1.00	27.27	C
ATOM	2694	OE1	GLU A 393	6.631	31.069	64.069	1.00	30.57	O
ATOM	2695	OE2	GLU A 393	5.849	31.703	65.977	1.00	30.03	O
ATOM	2696	C	GLU A 393	2.160	28.460	65.429	1.00	23.15	C
ATOM	2697	O	GLU A 393	2.738	27.617	64.729	1.00	23.90	O
ATOM	2698	N	ALA A 394	1.640	28.177	66.623	1.00	22.56	N
ATOM	2700	CA	ALA A 394	1.704	26.839	67.180	1.00	21.86	C
ATOM	2702	CB	ALA A 394	1.337	26.847	68.667	1.00	21.66	C

224

ATOM	2706	C	ALA A 394	0.794	25.919	66.389	1.00	21.49	C
ATOM	2707	O	ALA A 394	1.110	24.758	66.206	1.00	20.85	O
ATOM	2708	N	LEU A 395	-0.344	26.425	65.915	1.00	21.67	N
ATOM	2710	CA	LEU A 395	-1.212	25.612	65.037	1.00	21.93	C
ATOM	2712	CB	LEU A 395	-2.577	26.268	64.833	1.00	22.07	C
ATOM	2715	CG	LEU A 395	-3.454	26.406	66.085	1.00	23.60	C
ATOM	2717	CD1	LEU A 395	-4.753	27.161	65.747	1.00	23.46	C
ATOM	2721	CD2	LEU A 395	-3.770	25.073	66.709	1.00	24.27	C
ATOM	2725	C	LEU A 395	-0.548	25.304	63.672	1.00	21.30	C
ATOM	2726	O	LEU A 395	-0.693	24.209	63.134	1.00	20.06	O
ATOM	2727	N	GLN A 396	0.208	26.256	63.145	1.00	21.27	N
ATOM	2729	CA	GLN A 396	0.908	26.020	61.893	1.00	21.75	C
ATOM	2731	CB	GLN A 396	1.681	27.246	61.426	1.00	21.90	C
ATOM	2734	CG	GLN A 396	1.919	27.177	59.945	1.00	21.80	C
ATOM	2737	CD	GLN A 396	2.598	28.386	59.409	1.00	21.70	C
ATOM	2738	OE1	GLN A 396	2.052	29.057	58.532	1.00	24.11	O
ATOM	2739	NE2	GLN A 396	3.787	28.674	59.903	1.00	19.79	N
ATOM	2742	C	GLN A 396	1.878	24.871	61.995	1.00	21.52	C
ATOM	2743	O	GLN A 396	1.908	23.996	61.128	1.00	21.54	O
ATOM	2744	N	GLN A 397	2.641	24.879	63.080	1.00	21.23	N
ATOM	2746	CA	GLN A 397	3.788	23.997	63.248	1.00	21.05	C
ATOM	2748	CB	GLN A 397	4.347	24.082	64.680	1.00	21.37	C
ATOM	2751	CG	GLN A 397	5.532	23.159	64.942	1.00	24.36	C
ATOM	2754	CD	GLN A 397	6.140	23.289	66.353	1.00	28.63	C
ATOM	2755	OE1	GLN A 397	6.069	24.359	66.995	1.00	30.75	O
ATOM	2756	NE2	GLN A 397	6.758	22.198	66.827	1.00	29.08	N
ATOM	2759	C	GLN A 397	3.538	22.563	62.834	1.00	19.99	C
ATOM	2760	O	GLN A 397	4.297	22.055	62.042	1.00	19.80	O
ATOM	2761	N	PRO A 398	2.528	21.894	63.383	1.00	19.52	N
ATOM	2762	CA	PRO A 398	2.304	20.475	63.055	1.00	19.27	C
ATOM	2764	CB	PRO A 398	1.093	20.046	63.932	1.00	18.97	C
ATOM	2767	CG	PRO A 398	0.577	21.261	64.580	1.00	19.38	C
ATOM	2770	CD	PRO A 398	1.579	22.373	64.401	1.00	19.53	C
ATOM	2773	C	PRO A 398	2.017	20.226	61.599	1.00	18.62	C
ATOM	2774	O	PRO A 398	2.396	19.166	61.131	1.00	18.35	O
ATOM	2775	N	TYR A 399	1.362	21.149	60.913	1.00	18.36	N
ATOM	2777	CA	TYR A 399	1.100	20.973	59.479	1.00	19.20	C
ATOM	2779	CB	TYR A 399	0.005	21.966	59.000	1.00	19.17	C
ATOM	2782	CG	TYR A 399	-1.355	21.732	59.618	1.00	18.45	C
ATOM	2783	CD1	TYR A 399	-1.829	22.549	60.636	1.00	18.83	C
ATOM	2785	CE1	TYR A 399	-3.057	22.320	61.232	1.00	17.80	C
ATOM	2787	CZ	TYR A 399	-3.841	21.272	60.800	1.00	18.18	C
ATOM	2788	OH	TYR A 399	-5.081	21.058	61.386	1.00	19.70	O
ATOM	2790	CE2	TYR A 399	-3.391	20.443	59.796	1.00	17.70	C
ATOM	2792	CD2	TYR A 399	-2.153	20.671	59.218	1.00	18.99	C
ATOM	2794	C	TYR A 399	2.412	21.095	58.637	1.00	19.46	C
ATOM	2795	O	TYR A 399	2.678	20.332	57.704	1.00	19.29	O
ATOM	2796	N	VAL A 400	3.248	22.051	58.999	1.00	20.04	N

225

ATOM	2798	CA	VAL A 400	4.576	22.150	58.401	1.00	20.23	C
ATOM	2800	CB	VAL A 400	5.335	23.373	58.923	1.00	19.99	C
ATOM	2802	CG1	VAL A 400	6.693	23.459	58.264	1.00	20.63	C
ATOM	2806	CG2	VAL A 400	4.545	24.631	58.611	1.00	18.88	C
ATOM	2810	C	VAL A 400	5.356	20.856	58.610	1.00	20.10	C
ATOM	2811	O	VAL A 400	5.874	20.301	57.662	1.00	19.94	O
ATOM	2812	N	GLU A 401	5.385	20.383	59.851	1.00	20.78	N
ATOM	2814	CA	GLU A 401	5.907	19.053	60.237	1.00	21.23	C
ATOM	2816	CB	GLU A 401	5.662	18.795	61.744	1.00	21.63	C
ATOM	2819	CG	GLU A 401	6.803	19.248	62.663	1.00	24.26	C
ATOM	2822	CD	GLU A 401	6.540	19.034	64.151	1.00	26.48	C
ATOM	2823	OE1	GLU A 401	7.129	19.744	64.999	1.00	28.12	O
ATOM	2824	OE2	GLU A 401	5.746	18.144	64.479	1.00	29.48	O
ATOM	2825	C	GLU A 401	5.334	17.886	59.407	1.00	20.90	C
ATOM	2826	O	GLU A 401	6.073	17.001	58.972	1.00	20.52	O
ATOM	2827	N	ALA A 402	4.023	17.889	59.188	1.00	20.76	N
ATOM	2829	CA	ALA A 402	3.365	16.817	58.442	1.00	20.68	C
ATOM	2831	CB	ALA A 402	1.869	16.916	58.596	1.00	20.69	C
ATOM	2835	C	ALA A 402	3.744	16.876	56.978	1.00	20.91	C
ATOM	2836	O	ALA A 402	3.914	15.863	56.324	1.00	20.41	O
ATOM	2837	N	LEU A 403	3.896	18.085	56.464	1.00	21.89	N
ATOM	2839	CA	LEU A 403	4.295	18.257	55.078	1.00	22.32	C
ATOM	2841	CB	LEU A 403	4.143	19.707	54.644	1.00	22.16	C
ATOM	2844	CG	LEU A 403	4.369	19.853	53.144	1.00	21.61	C
ATOM	2846	CD1	LEU A 403	3.587	18.856	52.322	1.00	20.69	C
ATOM	2850	CD2	LEU A 403	3.947	21.218	52.799	1.00	22.87	C
ATOM	2854	C	LEU A 403	5.733	17.827	54.892	1.00	22.58	C
ATOM	2855	O	LEU A 403	6.058	17.156	53.943	1.00	22.65	O
ATOM	2856	N	LEU A 404	6.578	18.222	55.831	1.00	22.95	N
ATOM	2858	CA	LEU A 404	7.988	17.888	55.804	1.00	23.22	C
ATOM	2860	CB	LEU A 404	8.680	18.526	57.003	1.00	23.73	C
ATOM	2863	CG	LEU A 404	10.167	18.248	57.246	1.00	25.22	C
ATOM	2865	CD1	LEU A 404	10.988	18.355	55.960	1.00	26.22	C
ATOM	2869	CD2	LEU A 404	10.661	19.235	58.317	1.00	25.99	C
ATOM	2873	C	LEU A 404	8.186	16.389	55.807	1.00	22.91	C
ATOM	2874	O	LEU A 404	8.788	15.852	54.905	1.00	23.02	O
ATOM	2875	N	SER A 405	7.683	15.710	56.825	1.00	23.04	N
ATOM	2877	CA	SER A 405	7.651	14.251	56.821	1.00	23.28	C
ATOM	2879	CB	SER A 405	6.783	13.714	57.965	1.00	23.37	C
ATOM	2882	OG	SER A 405	7.253	14.169	59.216	1.00	25.09	O
ATOM	2884	C	SER A 405	7.110	13.688	55.498	1.00	23.06	C
ATOM	2885	O	SER A 405	7.705	12.763	54.935	1.00	22.72	O
ATOM	2886	N	TYR A 406	5.997	14.249	55.006	1.00	22.61	N
ATOM	2888	CA	TYR A 406	5.317	13.678	53.848	1.00	22.23	C
ATOM	2890	CB	TYR A 406	3.977	14.351	53.587	1.00	22.04	C
ATOM	2893	CG	TYR A 406	3.146	13.720	52.472	1.00	21.34	C
ATOM	2894	CD1	TYR A 406	2.099	12.831	52.747	1.00	20.83	C
ATOM	2896	CE1	TYR A 406	1.331	12.293	51.734	1.00	18.73	C

226

ATOM	2898	CZ	TYR A 406	1.620	12.628	50.449	1.00	19.07	C
ATOM	2899	OH	TYR A 406	0.919	12.123	49.410	1.00	19.33	O
ATOM	2901	CE2	TYR A 406	2.631	13.484	50.154	1.00	20.65	C
ATOM	2903	CD2	TYR A 406	3.380	14.035	51.155	1.00	20.77	C
ATOM	2905	C	TYR A 406	6.178	13.752	52.607	1.00	22.21	C
ATOM	2906	O	TYR A 406	6.249	12.785	51.862	1.00	22.49	O
ATOM	2907	N	THR A 407	6.837	14.885	52.396	1.00	22.35	N
ATOM	2909	CA	THR A 407	7.634	15.110	51.190	1.00	22.78	C
ATOM	2911	CB	THR A 407	7.900	16.620	50.935	1.00	22.45	C
ATOM	2913	OG1	THR A 407	8.488	17.222	52.080	1.00	21.50	O
ATOM	2915	CG2	THR A 407	6.593	17.407	50.770	1.00	22.13	C
ATOM	2919	C	THR A 407	8.932	14.351	51.263	1.00	23.93	C
ATOM	2920	O	THR A 407	9.482	13.979	50.241	1.00	23.74	O
ATOM	2921	N	ARG A 408	9.405	14.112	52.480	1.00	25.87	N
ATOM	2923	CA	ARG A 408	10.599	13.294	52.710	1.00	27.83	C
ATOM	2925	CB	ARG A 408	10.933	13.250	54.213	1.00	28.51	C
ATOM	2928	CG	ARG A 408	12.394	13.539	54.562	1.00	31.44	C
ATOM	2931	CD	ARG A 408	12.882	12.825	55.833	1.00	35.67	C
ATOM	2934	NE	ARG A 408	14.329	12.997	56.069	1.00	39.51	N
ATOM	2936	CZ	ARG A 408	14.903	14.064	56.646	1.00	41.72	C
ATOM	2937	NH1	ARG A 408	14.166	15.110	57.068	1.00	43.38	N
ATOM	2940	NH2	ARG A 408	16.227	14.090	56.794	1.00	40.97	N
ATOM	2943	C	ARG A 408	10.376	11.867	52.188	1.00	28.38	C
ATOM	2944	O	ARG A 408	11.152	11.347	51.398	1.00	28.05	O
ATOM	2945	N	ILE A 409	9.281	11.268	52.642	1.00	29.53	N
ATOM	2947	CA	ILE A 409	8.872	9.924	52.265	1.00	30.35	C
ATOM	2949	CB	ILE A 409	7.666	9.467	53.175	1.00	30.47	C
ATOM	2951	CG1	ILE A 409	8.186	8.932	54.520	1.00	31.08	C
ATOM	2954	CD1	ILE A 409	7.398	9.410	55.744	1.00	31.67	C
ATOM	2958	CG2	ILE A 409	6.795	8.411	52.500	1.00	30.57	C
ATOM	2962	C	ILE A 409	8.557	9.837	50.761	1.00	31.14	C
ATOM	2963	O	ILE A 409	9.217	9.071	50.071	1.00	31.25	O
ATOM	2964	N	LYS A 410	7.589	10.624	50.259	1.00	32.00	N
ATOM	2966	CA	LYS A 410	7.123	10.541	48.850	1.00	32.62	C
ATOM	2968	CB	LYS A 410	6.127	11.667	48.526	1.00	32.88	C
ATOM	2971	CG	LYS A 410	5.514	11.602	47.095	1.00	33.17	C
ATOM	2974	CD	LYS A 410	4.444	12.698	46.841	1.00	33.49	C
ATOM	2977	CE	LYS A 410	4.438	13.174	45.378	1.00	33.29	C
ATOM	2980	NZ	LYS A 410	3.211	13.935	45.003	1.00	32.16	N
ATOM	2984	C	LYS A 410	8.273	10.609	47.841	1.00	33.12	C
ATOM	2985	O	LYS A 410	8.434	9.725	46.983	1.00	33.01	O
ATOM	2986	N	ARG A 411	9.053	11.679	47.948	1.00	33.44	N
ATOM	2988	CA	ARG A 411	10.242	11.862	47.136	1.00	33.71	C
ATOM	2990	CB	ARG A 411	10.072	13.060	46.168	1.00	34.06	C
ATOM	2993	CG	ARG A 411	8.655	13.228	45.502	1.00	35.84	C
ATOM	2996	CD	ARG A 411	8.454	12.449	44.177	1.00	38.37	C
ATOM	2999	NE	ARG A 411	7.134	12.657	43.528	1.00	40.21	N
ATOM	3001	CZ	ARG A 411	6.559	11.815	42.631	1.00	40.45	C

227

ATOM	3002	NH1	ARG A 411	7.155	10.684	42.253	1.00	40.72	N
ATOM	3005	NH2	ARG A 411	5.373	12.106	42.103	1.00	39.93	N
ATOM	3008	C	ARG A 411	11.444	12.014	48.097	1.00	33.34	C
ATOM	3009	O	ARG A 411	11.789	13.111	48.527	1.00	33.43	O
ATOM	3010	N	PRO A 412	12.056	10.898	48.466	1.00	33.09	N
ATOM	3011	CA	PRO A 412	13.202	10.927	49.385	1.00	33.19	C
ATOM	3013	CB	PRO A 412	13.501	9.432	49.658	1.00	33.32	C
ATOM	3016	CG	PRO A 412	12.716	8.619	48.647	1.00	33.16	C
ATOM	3019	CD	PRO A 412	11.714	9.535	48.021	1.00	33.23	C
ATOM	3022	C	PRO A 412	14.437	11.621	48.813	1.00	33.22	C
ATOM	3023	O	PRO A 412	15.207	12.229	49.575	1.00	33.03	O
ATOM	3024	N	GLN A 413	14.607	11.535	47.493	1.00	33.27	N
ATOM	3026	CA	GLN A 413	15.813	12.018	46.816	1.00	33.09	C
ATOM	3028	CB	GLN A 413	16.368	10.897	45.909	1.00	33.13	C
ATOM	3031	CG	GLN A 413	17.255	9.849	46.660	1.00	33.32	C
ATOM	3034	CD	GLN A 413	16.721	8.408	46.605	1.00	33.28	C
ATOM	3035	OE1	GLN A 413	15.538	8.160	46.850	1.00	33.33	O
ATOM	3036	NE2	GLN A 413	17.601	7.463	46.295	1.00	32.31	N
ATOM	3039	C	GLN A 413	15.544	13.340	46.054	1.00	32.88	C
ATOM	3040	O	GLN A 413	16.138	13.603	45.005	1.00	32.60	O
ATOM	3041	N	ASP A 414	14.645	14.161	46.612	1.00	32.60	N
ATOM	3043	CA	ASP A 414	14.329	15.503	46.099	1.00	32.36	C
ATOM	3045	CB	ASP A 414	13.086	15.429	45.214	1.00	32.54	C
ATOM	3048	CG	ASP A 414	12.688	16.774	44.593	1.00	33.50	C
ATOM	3049	OD1	ASP A 414	13.470	17.767	44.614	1.00	33.77	O
ATOM	3050	OD2	ASP A 414	11.566	16.899	44.048	1.00	34.43	O
ATOM	3051	C	ASP A 414	14.136	16.463	47.295	1.00	31.92	C
ATOM	3052	O	ASP A 414	13.025	16.679	47.774	1.00	31.71	O
ATOM	3053	N	GLN A 415	15.249	17.024	47.766	1.00	31.57	N
ATOM	3055	CA	GLN A 415	15.298	17.798	49.011	1.00	31.04	C
ATOM	3057	CB	GLN A 415	16.736	17.897	49.508	1.00	31.40	C
ATOM	3060	CG	GLN A 415	17.240	16.632	50.162	1.00	32.60	C
ATOM	3063	CD	GLN A 415	18.712	16.677	50.389	1.00	33.34	C
ATOM	3064	OE1	GLN A 415	19.190	17.423	51.249	1.00	34.47	O
ATOM	3065	NE2	GLN A 415	19.450	15.903	49.607	1.00	34.47	N
ATOM	3068	C	GLN A 415	14.771	19.203	48.848	1.00	30.16	C
ATOM	3069	O	GLN A 415	14.345	19.817	49.821	1.00	29.98	O
ATOM	3070	N	LEU A 416	14.820	19.722	47.626	1.00	29.18	N
ATOM	3072	CA	LEU A 416	14.357	21.082	47.378	1.00	28.42	C
ATOM	3074	CB	LEU A 416	15.154	21.726	46.236	1.00	28.17	C
ATOM	3077	CG	LEU A 416	16.586	22.199	46.523	1.00	27.41	C
ATOM	3079	CD1	LEU A 416	16.934	23.258	45.535	1.00	27.48	C
ATOM	3083	CD2	LEU A 416	16.809	22.721	47.931	1.00	26.83	C
ATOM	3087	C	LEU A 416	12.850	21.174	47.110	1.00	27.89	C
ATOM	3088	O	LEU A 416	12.302	22.268	47.082	1.00	27.47	O
ATOM	3089	N	ARG A 417	12.191	20.037	46.920	1.00	27.59	N
ATOM	3091	CA	ARG A 417	10.733	20.005	46.738	1.00	27.42	C
ATOM	3093	CB	ARG A 417	10.239	18.536	46.727	1.00	27.61	C

228

ATOM	3096	CG	ARG A 417	8.781	18.282	47.141	1.00	29.03	C
ATOM	3099	CD	ARG A 417	8.283	16.833	46.853	1.00	30.11	C
ATOM	3102	NE	ARG A 417	6.873	16.775	46.418	1.00	30.60	N
ATOM	3104	CZ	ARG A 417	6.426	17.204	45.230	1.00	30.36	C
ATOM	3105	NH1	ARG A 417	7.270	17.711	44.330	1.00	30.42	N
ATOM	3108	NH2	ARG A 417	5.132	17.105	44.929	1.00	29.49	N
ATOM	3111	C	ARG A 417	10.026	20.853	47.815	1.00	26.58	C
ATOM	3112	O	ARG A 417	9.287	21.793	47.518	1.00	26.04	O
ATOM	3113	N	PHE A 418	10.294	20.540	49.068	1.00	26.04	N
ATOM	3115	CA	PHE A 418	9.607	21.200	50.171	1.00	25.76	C
ATOM	3117	CB	PHE A 418	9.929	20.450	51.455	1.00	26.07	C
ATOM	3120	CG	PHE A 418	9.361	21.061	52.676	1.00	27.39	C
ATOM	3121	CD1	PHE A 418	8.010	21.270	52.791	1.00	29.73	C
ATOM	3123	CE1	PHE A 418	7.471	21.816	53.944	1.00	30.72	C
ATOM	3125	CZ	PHE A 418	8.288	22.139	54.973	1.00	31.57	C
ATOM	3127	CE2	PHE A 418	9.656	21.926	54.861	1.00	32.00	C
ATOM	3129	CD2	PHE A 418	10.178	21.391	53.727	1.00	29.91	C
ATOM	3131	C	PHE A 418	9.893	22.723	50.269	1.00	24.73	C
ATOM	3132	O	PHE A 418	8.961	23.522	50.366	1.00	24.46	O
ATOM	3133	N	PRO A 419	11.155	23.132	50.252	1.00	23.55	N
ATOM	3134	CA	PRO A 419	11.468	24.556	50.127	1.00	23.35	C
ATOM	3136	CB	PRO A 419	12.977	24.571	49.841	1.00	22.97	C
ATOM	3139	CG	PRO A 419	13.483	23.341	50.426	1.00	22.97	C
ATOM	3142	CD	PRO A 419	12.372	22.320	50.405	1.00	23.54	C
ATOM	3145	C	PRO A 419	10.708	25.219	48.981	1.00	23.25	C
ATOM	3146	O	PRO A 419	10.217	26.313	49.196	1.00	23.56	O
ATOM	3147	N	ARG A 420	10.601	24.572	47.819	1.00	22.88	N
ATOM	3149	CA	ARG A 420	9.949	25.168	46.648	1.00	22.69	C
ATOM	3151	CB	ARG A 420	10.037	24.268	45.413	1.00	23.05	C
ATOM	3154	CG	ARG A 420	11.344	24.320	44.644	1.00	24.92	C
ATOM	3157	CD	ARG A 420	11.224	23.727	43.233	1.00	28.27	C
ATOM	3160	NE	ARG A 420	12.522	23.475	42.601	1.00	31.30	N
ATOM	3162	CZ	ARG A 420	13.271	22.382	42.803	1.00	34.58	C
ATOM	3163	NH1	ARG A 420	12.854	21.407	43.622	1.00	36.30	N
ATOM	3166	NH2	ARG A 420	14.449	22.251	42.183	1.00	34.12	N
ATOM	3169	C	ARG A 420	8.489	25.423	46.947	1.00	22.04	C
ATOM	3170	O	ARG A 420	7.939	26.438	46.524	1.00	21.89	O
ATOM	3171	N	MET A 421	7.856	24.504	47.675	1.00	21.52	N
ATOM	3173	CA	MET A 421	6.450	24.666	48.046	1.00	20.91	C
ATOM	3175	CB	MET A 421	5.937	23.429	48.739	1.00	20.70	C
ATOM	3178	CG	MET A 421	5.634	22.299	47.798	1.00	21.02	C
ATOM	3181	SD	MET A 421	5.218	20.786	48.673	1.00	19.95	S
ATOM	3182	CE	MET A 421	3.780	21.239	49.263	1.00	22.45	C
ATOM	3186	C	MET A 421	6.254	25.856	48.955	1.00	20.74	C
ATOM	3187	O	MET A 421	5.388	26.687	48.737	1.00	20.05	O
ATOM	3188	N	LEU A 422	7.076	25.951	49.978	1.00	21.30	N
ATOM	3190	CA	LEU A 422	6.961	27.067	50.892	1.00	21.96	C
ATOM	3192	CB	LEU A 422	7.972	26.920	52.048	1.00	22.35	C

229

ATOM	3195	CG	LEU A 422	7.795	25.673	52.935	1.00	24.02	C
ATOM	3197	CD1	LEU A 422	8.797	25.640	54.084	1.00	25.62	C
ATOM	3201	CD2	LEU A 422	6.380	25.531	53.478	1.00	24.35	C
ATOM	3205	C	LEU A 422	7.137	28.371	50.110	1.00	21.76	C
ATOM	3206	O	LEU A 422	6.398	29.310	50.305	1.00	22.00	O
ATOM	3207	N	MET A 423	8.078	28.408	49.175	1.00	21.60	N
ATOM	3209	CA	MET A 423	8.351	29.627	48.411	1.00	21.63	C
ATOM	3211	CB	MET A 423	9.532	29.401	47.463	1.00	22.48	C
ATOM	3214	CG	MET A 423	10.871	28.989	48.161	1.00	25.15	C
ATOM	3217	SD	MET A 423	11.977	30.338	48.557	1.00	28.49	S
ATOM	3218	CE	MET A 423	12.949	30.359	47.182	1.00	28.75	C
ATOM	3222	C	MET A 423	7.152	30.155	47.613	1.00	20.22	C
ATOM	3223	O	MET A 423	7.067	31.319	47.317	1.00	19.36	O
ATOM	3224	N	LYS A 424	6.237	29.275	47.253	1.00	19.52	N
ATOM	3226	CA	LYS A 424	4.994	29.675	46.610	1.00	18.74	C
ATOM	3228	CB	LYS A 424	4.270	28.457	46.040	1.00	18.77	C
ATOM	3231	CG	LYS A 424	5.017	27.815	44.925	1.00	19.22	C
ATOM	3234	CD	LYS A 424	5.115	28.752	43.726	1.00	21.18	C
ATOM	3237	CE	LYS A 424	5.767	28.077	42.502	1.00	22.94	C
ATOM	3240	NZ	LYS A 424	6.592	29.019	41.689	1.00	24.40	N
ATOM	3244	C	LYS A 424	4.069	30.432	47.551	1.00	17.80	C
ATOM	3245	O	LYS A 424	3.326	31.311	47.114	1.00	16.79	O
ATOM	3246	N	LEU A 425	4.112	30.096	48.834	1.00	16.96	N
ATOM	3248	CA	LEU A 425	3.452	30.940	49.842	1.00	16.90	C
ATOM	3250	CB	LEU A 425	3.626	30.388	51.254	1.00	17.39	C
ATOM	3253	CG	LEU A 425	3.104	28.965	51.501	1.00	18.37	C
ATOM	3255	CD1	LEU A 425	3.355	28.612	52.939	1.00	19.31	C
ATOM	3259	CD2	LEU A 425	1.641	28.857	51.167	1.00	19.13	C
ATOM	3263	C	LEU A 425	3.920	32.387	49.785	1.00	15.75	C
ATOM	3264	O	LEU A 425	3.143	33.278	49.958	1.00	15.21	O
ATOM	3265	N	VAL A 426	5.195	32.600	49.518	1.00	15.73	N
ATOM	3267	CA	VAL A 426	5.727	33.944	49.299	1.00	15.53	C
ATOM	3269	CB	VAL A 426	7.229	33.908	48.979	1.00	15.20	C
ATOM	3271	CG1	VAL A 426	7.749	35.282	48.813	1.00	15.09	C
ATOM	3275	CG2	VAL A 426	7.992	33.187	50.059	1.00	15.76	C
ATOM	3279	C	VAL A 426	5.053	34.578	48.106	1.00	15.52	C
ATOM	3280	O	VAL A 426	4.640	35.721	48.137	1.00	15.24	O
ATOM	3281	N	SER A 427	4.988	33.810	47.030	1.00	16.02	N
ATOM	3283	CA	SER A 427	4.421	34.275	45.781	1.00	16.14	C
ATOM	3285	CB	SER A 427	4.534	33.173	44.720	1.00	16.06	C
ATOM	3288	OG	SER A 427	5.854	33.124	44.199	1.00	16.93	O
ATOM	3290	C	SER A 427	2.973	34.722	46.000	1.00	16.25	C
ATOM	3291	O	SER A 427	2.595	35.800	45.561	1.00	15.92	O
ATOM	3292	N	LEU A 428	2.195	33.908	46.723	1.00	16.53	N
ATOM	3294	CA	LEU A 428	0.787	34.174	46.988	1.00	16.61	C
ATOM	3296	CB	LEU A 428	0.197	33.089	47.851	1.00	16.85	C
ATOM	3299	CG	LEU A 428	-0.058	31.775	47.107	1.00	18.38	C
ATOM	3301	CD1	LEU A 428	-0.363	30.689	48.151	1.00	18.87	C

230

ATOM	3305	CD2 LEU A 428	-1.199	31.859	46.064	1.00	18.12	C
ATOM	3309	C LEU A 428	0.523	35.476	47.685	1.00	16.85	C
ATOM	3310	O LEU A 428	-0.540	36.025	47.493	1.00	16.52	O
ATOM	3311	N ARG A 429	1.479	35.952	48.492	1.00	17.60	N
ATOM	3313	CA ARG A 429	1.358	37.220	49.219	1.00	17.77	C
ATOM	3315	CB ARG A 429	2.485	37.435	50.227	1.00	18.00	C
ATOM	3318	CG ARG A 429	2.480	36.588	51.439	1.00	17.80	C
ATOM	3321	CD ARG A 429	1.121	36.479	52.125	1.00	19.93	C
ATOM	3324	NE ARG A 429	1.196	35.633	53.321	1.00	20.21	N
ATOM	3326	CZ ARG A 429	1.457	36.083	54.542	1.00	20.19	C
ATOM	3327	NH1 ARG A 429	1.637	37.391	54.774	1.00	19.26	N
ATOM	3330	NH2 ARG A 429	1.524	35.207	55.538	1.00	20.42	N
ATOM	3333	C ARG A 429	1.436	38.363	48.283	1.00	18.10	C
ATOM	3334	O ARG A 429	0.653	39.273	48.394	1.00	18.81	O
ATOM	3335	N THR A 430	2.431	38.355	47.409	1.00	18.64	N
ATOM	3337	CA THR A 430	2.529	39.359	46.354	1.00	19.31	C
ATOM	3339	CB THR A 430	3.808	39.129	45.519	1.00	19.46	C
ATOM	3341	OG1 THR A 430	4.904	39.826	46.117	1.00	19.54	O
ATOM	3343	CG2 THR A 430	3.696	39.744	44.136	1.00	20.15	C
ATOM	3347	C THR A 430	1.282	39.310	45.455	1.00	19.59	C
ATOM	3348	O THR A 430	0.760	40.363	45.058	1.00	19.15	O
ATOM	3349	N LEU A 431	0.817	38.089	45.161	1.00	19.65	N
ATOM	3351	CA LEU A 431	-0.321	37.867	44.279	1.00	19.98	C
ATOM	3353	CB LEU A 431	-0.503	36.389	44.034	1.00	20.08	C
ATOM	3356	CG LEU A 431	-0.281	35.784	42.650	1.00	21.04	C
ATOM	3358	CD1 LEU A 431	0.233	36.774	41.638	1.00	22.08	C
ATOM	3362	CD2 LEU A 431	0.614	34.536	42.731	1.00	20.80	C
ATOM	3366	C LEU A 431	-1.620	38.425	44.847	1.00	20.42	C
ATOM	3367	O LEU A 431	-2.438	38.944	44.096	1.00	20.94	O
ATOM	3368	N SER A 432	-1.805	38.323	46.164	1.00	20.27	N
ATOM	3370	CA SER A 432	-2.925	38.950	46.850	1.00	19.94	C
ATOM	3372	CB SER A 432	-2.829	38.753	48.334	1.00	19.85	C
ATOM	3375	OG SER A 432	-3.931	39.389	48.922	1.00	20.35	O
ATOM	3377	C SER A 432	-2.994	40.429	46.654	1.00	20.43	C
ATOM	3378	O SER A 432	-4.079	40.960	46.515	1.00	20.88	O
ATOM	3379	N SER A 433	-1.842	41.103	46.699	1.00	20.85	N
ATOM	3381	CA SER A 433	-1.768	42.553	46.458	1.00	20.63	C
ATOM	3383	CB SER A 433	-0.381	43.093	46.772	1.00	20.87	C
ATOM	3386	OG SER A 433	0.018	42.700	48.074	1.00	22.56	O
ATOM	3388	C SER A 433	-2.096	42.902	45.027	1.00	20.21	C
ATOM	3389	O SER A 433	-2.773	43.883	44.790	1.00	20.71	O
ATOM	3390	N VAL A 434	-1.616	42.111	44.067	1.00	19.98	N
ATOM	3392	CA VAL A 434	-1.991	42.291	42.649	1.00	19.65	C
ATOM	3394	CB VAL A 434	-1.292	41.273	41.698	1.00	19.49	C
ATOM	3396	CG1 VAL A 434	-1.831	41.389	40.295	1.00	19.50	C
ATOM	3400	CG2 VAL A 434	0.201	41.480	41.659	1.00	19.36	C
ATOM	3404	C VAL A 434	-3.505	42.126	42.483	1.00	19.66	C
ATOM	3405	O VAL A 434	-4.109	42.756	41.619	1.00	19.42	O

231

ATOM	3406	N	HIS A 435	-4.115	41.290	43.323	1.00	19.83	N
ATOM	3408	CA	HIS A 435	-5.566	41.125	43.313	1.00	19.75	C
ATOM	3410	CB	HIS A 435	-6.013	39.831	44.010	1.00	19.36	C
ATOM	3413	CG	HIS A 435	-7.491	39.736	44.151	1.00	18.62	C
ATOM	3414	ND1	HIS A 435	-8.138	40.014	45.328	1.00	17.77	N
ATOM	3416	CE1	HIS A 435	-9.438	39.896	45.151	1.00	18.31	C
ATOM	3418	NE2	HIS A 435	-9.659	39.574	43.893	1.00	17.98	N
ATOM	3420	CD2	HIS A 435	-8.456	39.478	43.244	1.00	18.86	C
ATOM	3422	C	HIS A 435	-6.308	42.333	43.893	1.00	20.14	C
ATOM	3423	O	HIS A 435	-7.361	42.676	43.389	1.00	19.98	O
ATOM	3424	N	SER A 436	-5.775	42.969	44.939	1.00	20.92	N
ATOM	3426	CA	SER A 436	-6.373	44.199	45.479	1.00	21.45	C
ATOM	3428	CB	SER A 436	-5.640	44.651	46.719	1.00	21.08	C
ATOM	3431	OG	SER A 436	-6.065	43.887	47.808	1.00	22.20	O
ATOM	3433	C	SER A 436	-6.353	45.347	44.473	1.00	22.17	C
ATOM	3434	O	SER A 436	-7.250	46.186	44.458	1.00	21.92	O
ATOM	3435	N	GLU A 437	-5.301	45.383	43.660	1.00	22.91	N
ATOM	3437	CA	GLU A 437	-5.144	46.372	42.599	1.00	23.43	C
ATOM	3439	CB	GLU A 437	-3.731	46.285	42.035	1.00	23.83	C
ATOM	3442	CG	GLU A 437	-2.668	46.706	43.033	1.00	25.55	C
ATOM	3445	CD	GLU A 437	-1.273	46.418	42.533	1.00	28.12	C
ATOM	3446	OE1	GLU A 437	-0.338	46.356	43.379	1.00	29.77	O
ATOM	3447	OE2	GLU A 437	-1.118	46.260	41.291	1.00	29.12	O
ATOM	3448	C	GLU A 437	-6.163	46.188	41.473	1.00	23.06	C
ATOM	3449	O	GLU A 437	-6.631	47.163	40.880	1.00	22.75	O
ATOM	3450	N	GLN A 438	-6.495	44.930	41.192	1.00	22.97	N
ATOM	3452	CA	GLN A 438	-7.547	44.592	40.243	1.00	22.59	C
ATOM	3454	CB	GLN A 438	-7.583	43.092	39.966	1.00	22.22	C
ATOM	3457	CG	GLN A 438	-8.688	42.644	39.030	1.00	21.85	C
ATOM	3460	CD	GLN A 438	-8.530	43.205	37.648	1.00	21.21	C
ATOM	3461	OE1	GLN A 438	-7.916	42.573	36.787	1.00	20.42	O
ATOM	3462	NE2	GLN A 438	-9.066	44.403	37.429	1.00	20.77	N
ATOM	3465	C	GLN A 438	-8.901	45.055	40.748	1.00	22.79	C
ATOM	3466	O	GLN A 438	-9.667	45.589	39.959	1.00	23.19	O
ATOM	3467	N	VAL A 439	-9.195	44.876	42.040	1.00	22.62	N
ATOM	3469	CA	VAL A 439	-10.482	45.306	42.605	1.00	23.09	C
ATOM	3471	CB	VAL A 439	-10.666	44.801	44.074	1.00	22.84	C
ATOM	3473	CG1	VAL A 439	-11.891	45.422	44.727	1.00	22.88	C
ATOM	3477	CG2	VAL A 439	-10.792	43.277	44.127	1.00	22.83	C
ATOM	3481	C	VAL A 439	-10.678	46.851	42.539	1.00	23.97	C
ATOM	3482	O	VAL A 439	-11.739	47.339	42.138	1.00	24.18	O
ATOM	3483	N	PHE A 440	-9.642	47.583	42.946	1.00	24.82	N
ATOM	3485	CA	PHE A 440	-9.590	49.039	42.982	1.00	25.26	C
ATOM	3487	CB	PHE A 440	-8.283	49.428	43.693	1.00	25.27	C
ATOM	3490	CG	PHE A 440	-7.944	50.907	43.654	1.00	27.10	C
ATOM	3491	CD1	PHE A 440	-7.993	51.678	44.821	1.00	27.94	C
ATOM	3493	CE1	PHE A 440	-7.655	53.041	44.798	1.00	28.61	C
ATOM	3495	CZ	PHE A 440	-7.250	53.650	43.601	1.00	28.95	C

232

ATOM	3497	CE2 PHE A 440	-7.184	52.897	42.433	1.00	28.81	C
ATOM	3499	CD2 PHE A 440	-7.516	51.523	42.466	1.00	28.66	C
ATOM	3501	C PHE A 440	-9.671	49.601	41.545	1.00	25.77	C
ATOM	3502	O PHE A 440	-10.244	50.687	41.290	1.00	25.46	O
ATOM	3503	N ALA A 441	-9.113	48.839	40.605	1.00	26.29	N
ATOM	3505	CA ALA A 441	-9.124	49.206	39.183	1.00	26.44	C
ATOM	3507	CB ALA A 441	-8.154	48.333	38.413	1.00	26.33	C
ATOM	3511	C ALA A 441	-10.507	49.075	38.576	1.00	26.73	C
ATOM	3512	O ALA A 441	-10.884	49.872	37.737	1.00	26.80	O
ATOM	3513	N LEU A 442	-11.234	48.042	38.996	1.00	27.41	N
ATOM	3515	CA LEU A 442	-12.581	47.757	38.515	1.00	27.87	C
ATOM	3517	CB LEU A 442	-13.085	46.401	39.040	1.00	27.83	C
ATOM	3520	CG LEU A 442	-12.410	45.158	38.444	1.00	27.69	C
ATOM	3522	CD1 LEU A 442	-12.669	43.953	39.316	1.00	27.99	C
ATOM	3526	CD2 LEU A 442	-12.869	44.882	37.028	1.00	27.30	C
ATOM	3530	C LEU A 442	-13.514	48.840	38.983	1.00	28.46	C
ATOM	3531	O LEU A 442	-14.329	49.317	38.218	1.00	28.61	O
ATOM	3532	N ARG A 443	-13.391	49.228	40.246	1.00	29.29	N
ATOM	3534	CA ARG A 443	-14.209	50.299	40.808	1.00	30.04	C
ATOM	3536	CB ARG A 443	-13.736	50.649	42.217	1.00	30.22	C
ATOM	3539	CG ARG A 443	-14.192	49.662	43.274	1.00	31.52	C
ATOM	3542	CD ARG A 443	-15.332	50.167	44.148	1.00	33.85	C
ATOM	3545	NE ARG A 443	-14.955	50.238	45.560	1.00	35.83	N
ATOM	3547	CZ ARG A 443	-15.607	50.929	46.500	1.00	37.07	C
ATOM	3548	NH1 ARG A 443	-16.700	51.632	46.203	1.00	37.49	N
ATOM	3551	NH2 ARG A 443	-15.159	50.913	47.756	1.00	37.38	N
ATOM	3554	C ARG A 443	-14.196	51.546	39.923	1.00	30.25	C
ATOM	3555	O ARG A 443	-15.220	52.224	39.781	1.00	29.93	O
ATOM	3556	N LEU A 444	-13.032	51.831	39.334	1.00	30.75	N
ATOM	3558	CA LEU A 444	-12.860	52.956	38.392	1.00	31.09	C
ATOM	3560	CB LEU A 444	-11.384	53.066	37.950	1.00	31.17	C
ATOM	3563	CG LEU A 444	-10.487	54.098	38.648	1.00	31.22	C
ATOM	3565	CD1 LEU A 444	-10.498	53.963	40.166	1.00	31.19	C
ATOM	3569	CD2 LEU A 444	-9.067	53.983	38.114	1.00	31.45	C
ATOM	3573	C LEU A 444	-13.787	52.885	37.151	1.00	31.11	C
ATOM	3574	O LEU A 444	-14.194	53.923	36.611	1.00	31.11	O
ATOM	3575	N GLN A 445	-14.092	51.662	36.709	1.00	31.11	N
ATOM	3577	CA GLN A 445	-15.074	51.394	35.648	1.00	31.21	C
ATOM	3579	CB GLN A 445	-14.598	50.220	34.787	1.00	31.41	C
ATOM	3582	CG GLN A 445	-13.132	50.239	34.392	1.00	32.12	C
ATOM	3585	CD GLN A 445	-12.865	49.300	33.233	1.00	33.14	C
ATOM	3586	OE1 GLN A 445	-12.702	48.082	33.447	1.00	32.74	O
ATOM	3587	NE2 GLN A 445	-12.866	49.847	31.994	1.00	32.19	N
ATOM	3590	C GLN A 445	-16.465	51.032	36.204	1.00	31.07	C
ATOM	3591	O GLN A 445	-17.130	50.134	35.674	1.00	31.04	O
ATOM	3592	N ASP A 446	-16.901	51.742	37.250	1.00	30.89	N
ATOM	3594	CA ASP A 446	-18.107	51.412	38.047	1.00	30.55	C
ATOM	3596	CB ASP A 446	-19.350	52.244	37.606	1.00	30.66	C

233

ATOM	3599	CG	ASP A 446	-19.798	51.973	36.150	1.00	31.69	C
ATOM	3600	OD1	ASP A 446	-20.020	52.946	35.373	1.00	31.83	O
ATOM	3601	OD2	ASP A 446	-19.981	50.822	35.695	1.00	32.98	O
ATOM	3602	C	ASP A 446	-18.421	49.913	38.134	1.00	29.91	C
ATOM	3603	O	ASP A 446	-19.580	49.514	38.041	1.00	30.02	O
ATOM	3604	N	LYS A 447	-17.386	49.095	38.336	1.00	29.01	N
ATOM	3606	CA	LYS A 447	-17.536	47.638	38.442	1.00	28.56	C
ATOM	3608	CB	LYS A 447	-16.598	46.911	37.463	1.00	28.67	C
ATOM	3611	CG	LYS A 447	-16.953	47.087	35.975	1.00	29.64	C
ATOM	3614	CD	LYS A 447	-17.028	45.745	35.199	1.00	30.85	C
ATOM	3617	CE	LYS A 447	-15.821	45.495	34.266	1.00	31.17	C
ATOM	3620	NZ	LYS A 447	-16.241	45.320	32.835	1.00	31.49	N
ATOM	3624	C	LYS A 447	-17.265	47.168	39.878	1.00	27.76	C
ATOM	3625	O	LYS A 447	-16.191	46.639	40.168	1.00	27.90	O
ATOM	3626	N	LYS A 448	-18.263	47.349	40.749	1.00	26.87	N
ATOM	3628	CA	LYS A 448	-18.170	47.078	42.194	1.00	26.07	C
ATOM	3630	CB	LYS A 448	-19.153	47.975	42.975	1.00	26.32	C
ATOM	3633	CG	LYS A 448	-19.143	49.495	42.654	1.00	26.59	C
ATOM	3636	CD	LYS A 448	-20.515	50.161	42.976	1.00	27.73	C
ATOM	3639	CE	LYS A 448	-20.398	51.547	43.657	1.00	28.37	C
ATOM	3642	NZ	LYS A 448	-21.696	52.017	44.266	1.00	27.68	N
ATOM	3646	C	LYS A 448	-18.460	45.613	42.581	1.00	25.00	C
ATOM	3647	O	LYS A 448	-19.382	44.978	42.065	1.00	24.64	O
ATOM	3648	N	LEU A 449	-17.677	45.097	43.519	1.00	23.95	N
ATOM	3650	CA	LEU A 449	-17.946	43.791	44.105	1.00	23.17	C
ATOM	3652	CB	LEU A 449	-16.916	43.468	45.186	1.00	22.93	C
ATOM	3655	CG	LEU A 449	-15.452	43.316	44.788	1.00	22.84	C
ATOM	3657	CD1	LEU A 449	-14.614	42.959	46.012	1.00	22.45	C
ATOM	3661	CD2	LEU A 449	-15.288	42.271	43.719	1.00	23.33	C
ATOM	3665	C	LEU A 449	-19.342	43.712	44.746	1.00	22.85	C
ATOM	3666	O	LEU A 449	-19.805	44.665	45.383	1.00	22.49	O
ATOM	3667	N	PRO A 450	-20.010	42.569	44.593	1.00	22.45	N
ATOM	3668	CA	PRO A 450	-21.241	42.307	45.343	1.00	22.20	C
ATOM	3670	CB	PRO A 450	-21.803	41.047	44.666	1.00	22.22	C
ATOM	3673	CG	PRO A 450	-20.637	40.367	44.087	1.00	21.90	C
ATOM	3676	CD	PRO A 450	-19.674	41.443	43.702	1.00	22.32	C
ATOM	3679	C	PRO A 450	-20.978	42.057	46.844	1.00	21.92	C
ATOM	3680	O	PRO A 450	-19.844	41.845	47.289	1.00	21.27	O
ATOM	3681	N	PRO A 451	-22.050	42.075	47.622	1.00	21.60	N
ATOM	3682	CA	PRO A 451	-21.931	42.136	49.075	1.00	21.42	C
ATOM	3684	CB	PRO A 451	-23.368	41.933	49.537	1.00	21.48	C
ATOM	3687	CG	PRO A 451	-24.173	42.511	48.422	1.00	21.66	C
ATOM	3690	CD	PRO A 451	-23.460	42.050	47.195	1.00	21.52	C
ATOM	3693	C	PRO A 451	-21.033	41.081	49.665	1.00	21.33	C
ATOM	3694	O	PRO A 451	-20.235	41.434	50.504	1.00	21.87	O
ATOM	3695	N	LEU A 452	-21.154	39.826	49.239	1.00	21.12	N
ATOM	3697	CA	LEU A 452	-20.446	38.723	49.896	1.00	20.62	C
ATOM	3699	CB	LEU A 452	-20.979	37.379	49.408	1.00	20.09	C

234

ATOM	3702	CG	LEU A 452	-22.431	37.092	49.784	1.00	20.73	C
ATOM	3704	CD1	LEU A 452	-22.785	35.714	49.301	1.00	21.49	C
ATOM	3708	CD2	LEU A 452	-22.716	37.186	51.287	1.00	20.70	C
ATOM	3712	C	LEU A 452	-18.931	38.801	49.717	1.00	20.65	C
ATOM	3713	O	LEU A 452	-18.167	38.384	50.601	1.00	21.01	O
ATOM	3714	N	LEU A 453	-18.514	39.333	48.571	1.00	20.44	N
ATOM	3716	CA	LEU A 453	-17.120	39.567	48.284	1.00	20.21	C
ATOM	3718	CB	LEU A 453	-16.874	39.494	46.771	1.00	19.94	C
ATOM	3721	CG	LEU A 453	-17.234	38.206	46.036	1.00	18.63	C
ATOM	3723	CD1	LEU A 453	-16.851	38.295	44.560	1.00	17.21	C
ATOM	3727	CD2	LEU A 453	-16.565	37.017	46.679	1.00	18.51	C
ATOM	3731	C	LEU A 453	-16.653	40.926	48.827	1.00	20.82	C
ATOM	3732	O	LEU A 453	-15.474	41.090	49.107	1.00	20.92	O
ATOM	3733	N	SER A 454	-17.549	41.900	48.981	1.00	21.37	N
ATOM	3735	CA	SER A 454	-17.140	43.210	49.503	1.00	21.77	C
ATOM	3737	CB	SER A 454	-18.195	44.314	49.255	1.00	21.86	C
ATOM	3740	OG	SER A 454	-17.652	45.370	48.461	1.00	20.15	O
ATOM	3742	C	SER A 454	-16.764	43.123	50.982	1.00	22.46	C
ATOM	3743	O	SER A 454	-15.807	43.761	51.400	1.00	21.96	O
ATOM	3744	N	GLU A 455	-17.479	42.312	51.757	1.00	23.59	N
ATOM	3746	CA	GLU A 455	-17.096	42.049	53.141	1.00	25.53	C
ATOM	3748	CB	GLU A 455	-17.878	40.852	53.690	1.00	25.84	C
ATOM	3751	CG	GLU A 455	-19.276	41.185	54.208	1.00	28.77	C
ATOM	3754	CD	GLU A 455	-20.256	39.994	54.195	1.00	31.25	C
ATOM	3755	OE1	GLU A 455	-21.394	40.150	54.700	1.00	31.67	O
ATOM	3756	OE2	GLU A 455	-19.905	38.907	53.671	1.00	33.40	O
ATOM	3757	C	GLU A 455	-15.572	41.767	53.264	1.00	26.68	C
ATOM	3758	O	GLU A 455	-14.908	42.249	54.198	1.00	27.07	O
ATOM	3759	N	ILE A 456	-15.033	41.007	52.298	1.00	27.38	N
ATOM	3761	CA	ILE A 456	-13.678	40.479	52.359	1.00	27.66	C
ATOM	3763	CB	ILE A 456	-13.569	39.091	51.642	1.00	27.97	C
ATOM	3765	CG1	ILE A 456	-14.852	38.268	51.657	1.00	27.83	C
ATOM	3768	CD1	ILE A 456	-14.735	37.002	50.750	1.00	28.22	C
ATOM	3772	CG2	ILE A 456	-12.479	38.256	52.267	1.00	28.27	C
ATOM	3776	C	ILE A 456	-12.617	41.407	51.744	1.00	27.81	C
ATOM	3777	O	ILE A 456	-11.530	41.525	52.294	1.00	27.84	O
ATOM	3778	N	TRP A 457	-12.916	42.059	50.619	1.00	28.14	N
ATOM	3780	CA	TRP A 457	-11.868	42.665	49.790	1.00	28.27	C
ATOM	3782	CB	TRP A 457	-11.835	41.959	48.438	1.00	27.80	C
ATOM	3785	CG	TRP A 457	-11.435	40.531	48.478	1.00	26.47	C
ATOM	3786	CD1	TRP A 457	-10.558	39.953	49.332	1.00	27.09	C
ATOM	3788	NE1	TRP A 457	-10.425	38.613	49.055	1.00	25.93	N
ATOM	3790	CE2	TRP A 457	-11.230	38.300	47.999	1.00	24.67	C
ATOM	3791	CD2	TRP A 457	-11.882	39.486	47.609	1.00	25.03	C
ATOM	3792	CE3	TRP A 457	-12.766	39.430	46.534	1.00	24.74	C
ATOM	3794	CZ3	TRP A 457	-12.973	38.214	45.906	1.00	24.55	C
ATOM	3796	CH2	TRP A 457	-12.305	37.059	46.315	1.00	23.20	C
ATOM	3798	CZ2	TRP A 457	-11.438	37.079	47.361	1.00	23.28	C

235

ATOM	3800	C	TRP A 457	-11.866	44.207	49.556	1.00	29.43	C
ATOM	3801	O	TRP A 457	-10.929	44.708	48.934	1.00	30.28	O
ATOM	3802	N	ASP A 458	-12.832	44.991	50.016	1.00	30.20	N
ATOM	3804	CA	ASP A 458	-12.664	46.443	49.817	1.00	31.40	C
ATOM	3806	CB	ASP A 458	-13.193	46.934	48.434	1.00	31.63	C
ATOM	3809	CG	ASP A 458	-14.687	46.637	48.197	1.00	31.97	C
ATOM	3810	OD1	ASP A 458	-15.402	46.153	49.106	1.00	32.78	O
ATOM	3811	OD2	ASP A 458	-15.234	46.859	47.099	1.00	32.00	O
ATOM	3812	C	ASP A 458	-13.209	47.291	50.953	1.00	32.10	C
ATOM	3813	O	ASP A 458	-12.455	47.641	51.862	1.00	33.21	O
ATOM	3814	O13	444 A 500	-12.903	32.520	41.908	1.00	38.73	O
ATOM	3815	S12	444 A 500	-11.714	32.268	41.174	1.00	36.50	S
ATOM	3816	O14	444 A 500	-11.233	30.945	41.500	1.00	38.80	O
ATOM	3817	C01	444 A 500	-12.307	32.240	39.501	1.00	35.82	C
ATOM	3818	C02	444 A 500	-11.762	31.312	38.546	1.00	36.26	C
ATOM	3820	C03	444 A 500	-12.224	31.300	37.209	1.00	35.69	C
ATOM	3822	C04	444 A 500	-13.224	32.213	36.827	1.00	36.31	C
ATOM	3824	C05	444 A 500	-13.749	33.139	37.783	1.00	36.97	C
ATOM	3826	C06	444 A 500	-13.296	33.164	39.129	1.00	35.39	C
ATOM	3828	N15	444 A 500	-10.433	33.536	41.205	1.00	29.97	N
ATOM	3829	C16	444 A 500	-9.292	33.272	40.226	1.00	28.97	C
ATOM	3832	C19	444 A 500	-7.983	33.620	40.842	1.00	29.01	C
ATOM	3833	F22	444 A 500	-7.029	33.116	40.045	1.00	29.49	F
ATOM	3834	F21	444 A 500	-7.818	33.167	42.091	1.00	28.48	F
ATOM	3835	F20	444 A 500	-7.832	34.923	40.956	1.00	30.58	F
ATOM	3836	C23	444 A 500	-10.835	34.982	41.185	1.00	24.01	C
ATOM	3837	C24	444 A 500	-10.965	35.672	42.397	1.00	22.07	C
ATOM	3839	C25	444 A 500	-11.379	37.020	42.458	1.00	19.90	C
ATOM	3841	C28	444 A 500	-11.160	35.725	40.000	1.00	21.92	C
ATOM	3843	C27	444 A 500	-11.581	37.074	40.053	1.00	19.73	C
ATOM	3845	C26	444 A 500	-11.693	37.779	41.289	1.00	17.65	C
ATOM	3846	C33	444 A 500	-12.190	39.247	41.480	1.00	16.46	C
ATOM	3847	C34	444 A 500	-11.551	40.241	40.502	1.00	16.76	C
ATOM	3848	F36	444 A 500	-11.967	41.510	40.769	1.00	16.31	F
ATOM	3849	F37	444 A 500	-10.218	40.150	40.593	1.00	17.90	F
ATOM	3850	F35	444 A 500	-11.819	39.974	39.215	1.00	17.74	F
ATOM	3851	O42	444 A 500	-11.993	39.783	42.823	1.00	14.95	O
ATOM	3853	C38	444 A 500	-13.728	39.235	41.163	1.00	17.17	C
ATOM	3854	F39	444 A 500	-14.006	38.764	39.913	1.00	16.84	F
ATOM	3855	F40	444 A 500	-14.373	38.394	42.018	1.00	16.20	F
ATOM	3856	F41	444 A 500	-14.397	40.411	41.232	1.00	16.25	F
ATOM	3857	N	ALA B 219	28.704	17.672	55.232	1.00	24.68	N
ATOM	3859	CA	ALA B 219	29.588	18.889	55.338	1.00	24.58	C
ATOM	3861	CB	ALA B 219	31.057	18.475	55.521	1.00	24.07	C
ATOM	3865	C	ALA B 219	29.402	19.870	54.131	1.00	24.15	C
ATOM	3866	O	ALA B 219	29.068	19.449	53.011	1.00	24.62	O
ATOM	3869	N	LEU B 220	29.571	21.174	54.377	1.00	23.16	N
ATOM	3871	CA	LEU B 220	29.472	22.199	53.328	1.00	21.99	C

236

ATOM	3873	CB	LEU B 220	29.618	23.615	53.917	1.00	22.09	C
ATOM	3876	CG	LEU B 220	28.445	24.252	54.663	1.00	22.49	C
ATOM	3878	CD1	LEU B 220	28.806	25.618	55.244	1.00	22.67	C
ATOM	3882	CD2	LEU B 220	27.274	24.393	53.735	1.00	23.37	C
ATOM	3886	C	LEU B 220	30.574	21.976	52.321	1.00	20.67	C
ATOM	3887	O	LEU B 220	31.672	21.583	52.686	1.00	20.63	O
ATOM	3888	N	THR B 221	30.290	22.225	51.056	1.00	19.37	N
ATOM	3890	CA	THR B 221	31.324	22.139	50.027	1.00	18.46	C
ATOM	3892	CB	THR B 221	30.691	21.996	48.660	1.00	18.60	C
ATOM	3894	OG1	THR B 221	29.876	23.146	48.391	1.00	18.73	O
ATOM	3896	CG2	THR B 221	29.728	20.812	48.623	1.00	18.50	C
ATOM	3900	C	THR B 221	32.188	23.387	50.055	1.00	17.40	C
ATOM	3901	O	THR B 221	31.846	24.361	50.699	1.00	16.71	O
ATOM	3902	N	ALA B 222	33.316	23.363	49.370	1.00	16.94	N
ATOM	3904	CA	ALA B 222	34.154	24.554	49.299	1.00	17.09	C
ATOM	3906	CB	ALA B 222	35.444	24.268	48.587	1.00	16.86	C
ATOM	3910	C	ALA B 222	33.393	25.687	48.602	1.00	17.18	C
ATOM	3911	O	ALA B 222	33.418	26.821	49.053	1.00	17.54	O
ATOM	3912	N	ALA B 223	32.686	25.375	47.528	1.00	17.06	N
ATOM	3914	CA	ALA B 223	31.927	26.389	46.822	1.00	17.33	C
ATOM	3916	CB	ALA B 223	31.190	25.781	45.660	1.00	17.42	C
ATOM	3920	C	ALA B 223	30.956	27.083	47.762	1.00	17.63	C
ATOM	3921	O	ALA B 223	30.837	28.298	47.750	1.00	17.46	O
ATOM	3922	N	GLN B 224	30.290	26.292	48.594	1.00	18.35	N
ATOM	3924	CA	GLN B 224	29.242	26.776	49.504	1.00	18.65	C
ATOM	3926	CB	GLN B 224	28.462	25.594	50.120	1.00	18.47	C
ATOM	3929	CG	GLN B 224	27.469	24.947	49.161	1.00	18.73	C
ATOM	3932	CD	GLN B 224	26.721	23.757	49.765	1.00	18.05	C
ATOM	3933	OE1	GLN B 224	27.221	23.088	50.658	1.00	18.57	O
ATOM	3934	NE2	GLN B 224	25.523	23.509	49.278	1.00	15.43	N
ATOM	3937	C	GLN B 224	29.815	27.643	50.613	1.00	18.94	C
ATOM	3938	O	GLN B 224	29.189	28.628	51.022	1.00	18.39	O
ATOM	3939	N	GLU B 225	30.991	27.260	51.108	1.00	19.45	N
ATOM	3941	CA	GLU B 225	31.637	28.043	52.135	1.00	20.29	C
ATOM	3943	CB	GLU B 225	32.820	27.331	52.758	1.00	20.53	C
ATOM	3946	CG	GLU B 225	32.388	26.464	53.917	1.00	22.48	C
ATOM	3949	CD	GLU B 225	33.538	25.795	54.602	1.00	23.89	C
ATOM	3950	OE1	GLU B 225	34.681	26.120	54.235	1.00	24.51	O
ATOM	3951	OE2	GLU B 225	33.285	24.955	55.503	1.00	26.73	O
ATOM	3952	C	GLU B 225	32.088	29.334	51.537	1.00	20.43	C
ATOM	3953	O	GLU B 225	31.942	30.365	52.163	1.00	20.91	O
ATOM	3954	N	LEU B 226	32.610	29.285	50.323	1.00	20.47	N
ATOM	3956	CA	LEU B 226	33.125	30.479	49.703	1.00	20.90	C
ATOM	3958	CB	LEU B 226	33.872	30.139	48.413	1.00	21.31	C
ATOM	3961	CG	LEU B 226	34.698	31.259	47.755	1.00	21.27	C
ATOM	3963	CD1	LEU B 226	35.609	31.969	48.733	1.00	21.43	C
ATOM	3967	CD2	LEU B 226	35.505	30.650	46.674	1.00	21.43	C
ATOM	3971	C	LEU B 226	31.997	31.465	49.427	1.00	21.31	C

237

ATOM	3972	O	LEU B 226	32.160	32.670	49.647	1.00	21.15	O
ATOM	3973	N	MET B 227	30.849	30.956	48.985	1.00	21.73	N
ATOM	3975	CA	MET B 227	29.714	31.813	48.664	1.00	22.09	C
ATOM	3977	CB	MET B 227	28.634	31.054	47.892	1.00	22.54	C
ATOM	3980	CG	MET B 227	27.269	30.909	48.549	1.00	23.79	C
ATOM	3983	SD	MET B 227	26.142	29.773	47.621	1.00	27.96	S
ATOM	3984	CE	MET B 227	27.188	28.736	46.570	1.00	27.48	C
ATOM	3988	C	MET B 227	29.172	32.474	49.912	1.00	22.21	C
ATOM	3989	O	MET B 227	28.708	33.588	49.833	1.00	22.95	O
ATOM	3990	N	ILE B 228	29.266	31.823	51.068	1.00	22.34	N
ATOM	3992	CA	ILE B 228	28.910	32.476	52.333	1.00	22.29	C
ATOM	3994	CB	ILE B 228	28.737	31.450	53.511	1.00	22.56	C
ATOM	3996	CG1	ILE B 228	27.588	30.472	53.242	1.00	23.49	C
ATOM	3999	CD1	ILE B 228	27.627	29.236	54.122	1.00	23.22	C
ATOM	4003	CG2	ILE B 228	28.437	32.169	54.846	1.00	22.22	C
ATOM	4007	C	ILE B 228	29.960	33.531	52.699	1.00	21.82	C
ATOM	4008	O	ILE B 228	29.614	34.617	53.154	1.00	21.47	O
ATOM	4009	N	GLN B 229	31.238	33.211	52.521	1.00	21.59	N
ATOM	4011	CA	GLN B 229	32.324	34.134	52.913	1.00	21.52	C
ATOM	4013	CB	GLN B 229	33.685	33.452	52.905	1.00	21.14	C
ATOM	4016	CG	GLN B 229	33.892	32.331	53.874	1.00	21.05	C
ATOM	4019	CD	GLN B 229	35.306	31.720	53.750	1.00	22.52	C
ATOM	4020	OE1	GLN B 229	36.108	32.126	52.906	1.00	23.55	O
ATOM	4021	NE2	GLN B 229	35.607	30.755	54.605	1.00	23.97	N
ATOM	4024	C	GLN B 229	32.362	35.373	51.986	1.00	21.62	C
ATOM	4025	O	GLN B 229	32.573	36.499	52.457	1.00	20.86	O
ATOM	4026	N	GLN B 230	32.153	35.142	50.684	1.00	21.69	N
ATOM	4028	CA	GLN B 230	31.980	36.219	49.695	1.00	22.27	C
ATOM	4030	CB	GLN B 230	31.551	35.671	48.304	1.00	22.97	C
ATOM	4033	CG	GLN B 230	32.497	35.982	47.154	1.00	25.55	C
ATOM	4036	CD	GLN B 230	32.631	34.843	46.076	1.00	29.62	C
ATOM	4037	OE1	GLN B 230	31.764	33.960	45.941	1.00	30.03	O
ATOM	4038	NE2	GLN B 230	33.734	34.895	45.308	1.00	31.02	N
ATOM	4041	C	GLN B 230	30.910	37.187	50.183	1.00	21.84	C
ATOM	4042	O	GLN B 230	31.139	38.390	50.202	1.00	21.52	O
ATOM	4043	N	LEU B 231	29.742	36.648	50.550	1.00	21.50	N
ATOM	4045	CA	LEU B 231	28.599	37.461	50.943	1.00	21.25	C
ATOM	4047	CB	LEU B 231	27.354	36.589	51.108	1.00	20.78	C
ATOM	4050	CG	LEU B 231	26.673	36.046	49.837	1.00	20.15	C
ATOM	4052	CD1	LEU B 231	25.392	35.295	50.237	1.00	19.85	C
ATOM	4056	CD2	LEU B 231	26.335	37.096	48.808	1.00	19.23	C
ATOM	4060	C	LEU B 231	28.865	38.252	52.232	1.00	21.94	C
ATOM	4061	O	LEU B 231	28.598	39.448	52.300	1.00	21.80	O
ATOM	4062	N	VAL B 232	29.426	37.585	53.235	1.00	22.76	N
ATOM	4064	CA	VAL B 232	29.628	38.171	54.549	1.00	23.21	C
ATOM	4066	CB	VAL B 232	30.141	37.090	55.513	1.00	23.16	C
ATOM	4068	CG1	VAL B 232	30.761	37.688	56.793	1.00	22.84	C
ATOM	4072	CG2	VAL B 232	29.026	36.110	55.844	1.00	22.95	C

238

ATOM 4076 C VAL B 232	30.630	39.320	54.456	1.00	24.43	C
ATOM 4077 O VAL B 232	30.505	40.316	55.165	1.00	25.28	O
ATOM 4078 N ALA B 233	31.619	39.159	53.572	1.00	25.43	N
ATOM 4080 CA ALA B 233	32.706	40.125	53.343	1.00	26.13	C
ATOM 4082 CB ALA B 233	33.869	39.411	52.651	1.00	26.16	C
ATOM 4086 C ALA B 233	32.307	41.346	52.502	1.00	27.05	C
ATOM 4087 O ALA B 233	32.789	42.446	52.732	1.00	27.17	O
ATOM 4088 N ALA B 234	31.490	41.118	51.482	1.00	28.25	N
ATOM 4090 CA ALA B 234	30.831	42.176	50.727	1.00	29.27	C
ATOM 4092 CB ALA B 234	29.965	41.558	49.621	1.00	29.31	C
ATOM 4096 C ALA B 234	29.958	43.004	51.655	1.00	30.40	C
ATOM 4097 O ALA B 234	29.882	44.210	51.552	1.00	29.95	O
ATOM 4098 N GLN B 235	29.294	42.316	52.566	1.00	32.57	N
ATOM 4100 CA GLN B 235	28.399	42.928	53.543	1.00	34.38	C
ATOM 4102 CB GLN B 235	27.829	41.824	54.441	1.00	34.81	C
ATOM 4105 CG GLN B 235	26.865	42.286	55.484	1.00	37.75	C
ATOM 4108 CD GLN B 235	25.566	41.484	55.460	1.00	41.27	C
ATOM 4109 OE1 GLN B 235	25.504	40.371	56.026	1.00	42.65	O
ATOM 4110 NE2 GLN B 235	24.525	42.046	54.814	1.00	41.12	N
ATOM 4113 C GLN B 235	29.145	43.957	54.375	1.00	34.95	C
ATOM 4114 O GLN B 235	28.613	45.011	54.675	1.00	34.65	O
ATOM 4115 N LEU B 236	30.389	43.615	54.715	1.00	36.32	N
ATOM 4117 CA LEU B 236	31.262	44.414	55.564	1.00	37.34	C
ATOM 4119 CB LEU B 236	32.433	43.559	56.017	1.00	37.63	C
ATOM 4122 CG LEU B 236	32.509	43.208	57.493	1.00	38.70	C
ATOM 4124 CD1 LEU B 236	31.604	41.997	57.824	1.00	39.79	C
ATOM 4128 CD2 LEU B 236	33.960	42.926	57.797	1.00	38.57	C
ATOM 4132 C LEU B 236	31.815	45.657	54.869	1.00	38.08	C
ATOM 4133 O LEU B 236	31.855	46.726	55.461	1.00	37.92	O
ATOM 4134 N GLN B 237	32.262	45.493	53.626	1.00	39.36	N
ATOM 4136 CA GLN B 237	32.746	46.598	52.797	1.00	40.70	C
ATOM 4138 CB GLN B 237	33.415	46.058	51.524	1.00	40.83	C
ATOM 4141 CG GLN B 237	34.532	46.964	50.971	1.00	41.60	C
ATOM 4144 CD GLN B 237	34.992	46.534	49.591	1.00	42.42	C
ATOM 4145 OE1 GLN B 237	34.170	46.108	48.764	1.00	42.22	O
ATOM 4146 NE2 GLN B 237	36.308	46.630	49.337	1.00	42.50	N
ATOM 4149 C GLN B 237	31.632	47.602	52.424	1.00	41.89	C
ATOM 4150 O GLN B 237	31.882	48.807	52.305	1.00	41.99	O
ATOM 4151 N CYS B 238	30.413	47.104	52.241	1.00	43.32	N
ATOM 4153 CA CYS B 238	29.246	47.954	52.013	1.00	44.73	C
ATOM 4155 CB CYS B 238	28.069	47.119	51.513	1.00	44.86	C
ATOM 4158 SG CYS B 238	28.396	46.553	49.839	1.00	46.85	S
ATOM 4159 C CYS B 238	28.835	48.702	53.267	1.00	45.60	C
ATOM 4160 O CYS B 238	28.345	49.828	53.170	1.00	46.06	O
ATOM 4161 N ASN B 239	29.045	48.079	54.429	1.00	46.60	N
ATOM 4163 CA ASN B 239	28.756	48.692	55.732	1.00	47.74	C
ATOM 4165 CB ASN B 239	28.707	47.600	56.824	1.00	47.61	C
ATOM 4168 CG ASN B 239	28.145	48.099	58.160	1.00	48.06	C

239

ATOM	4169	OD1 ASN B 239	26.976	47.868	58.480	1.00	49.54	O
ATOM	4170	ND2 ASN B 239	28.986	48.764	58.954	1.00	48.17	N
ATOM	4173	C ASN B 239	29.743	49.820	56.132	1.00	48.99	C
ATOM	4174	O ASN B 239	29.520	50.493	57.140	1.00	49.79	O
ATOM	4175	N LYS B 240	30.828	50.030	55.377	1.00	50.23	N
ATOM	4177	CA LYS B 240	31.737	51.171	55.618	1.00	51.04	C
ATOM	4179	CB LYS B 240	33.089	50.963	54.917	1.00	51.14	C
ATOM	4182	CG LYS B 240	33.873	49.716	55.368	1.00	51.19	C
ATOM	4185	CD LYS B 240	34.958	49.321	54.340	1.00	51.44	C
ATOM	4188	CE LYS B 240	35.658	48.003	54.703	1.00	51.36	C
ATOM	4191	NZ LYS B 240	37.081	48.229	55.115	1.00	51.87	N
ATOM	4195	C LYS B 240	31.098	52.504	55.168	1.00	51.98	C
ATOM	4196	O LYS B 240	31.449	53.570	55.684	1.00	51.78	O
ATOM	4197	N ARG B 241	30.184	52.424	54.192	1.00	53.10	N
ATOM	4199	CA ARG B 241	29.218	53.500	53.891	1.00	54.14	C
ATOM	4201	CB ARG B 241	28.221	53.042	52.809	1.00	54.42	C
ATOM	4204	CG ARG B 241	27.434	54.178	52.132	1.00	55.90	C
ATOM	4207	CD ARG B 241	28.245	54.961	51.073	1.00	57.98	C
ATOM	4210	NE ARG B 241	27.427	55.921	50.318	1.00	59.30	N
ATOM	4212	CZ ARG B 241	27.611	57.250	50.276	1.00	60.60	C
ATOM	4213	NH1 ARG B 241	28.598	57.855	50.950	1.00	60.35	N
ATOM	4216	NH2 ARG B 241	26.784	57.993	49.545	1.00	61.55	N
ATOM	4219	C ARG B 241	28.423	53.954	55.135	1.00	54.58	C
ATOM	4220	O ARG B 241	28.148	55.141	55.293	1.00	54.62	O
ATOM	4221	N SER B 242	28.051	52.997	55.996	1.00	55.06	N
ATOM	4223	CA SER B 242	27.372	53.273	57.277	1.00	55.17	C
ATOM	4225	CB SER B 242	26.892	51.980	57.957	1.00	55.30	C
ATOM	4228	OG SER B 242	25.473	51.941	58.068	1.00	56.31	O
ATOM	4230	C SER B 242	28.211	54.049	58.288	1.00	55.24	C
ATOM	4231	O SER B 242	27.705	54.999	58.884	1.00	55.71	O
ATOM	4232	N PHE B 243	29.463	53.655	58.521	1.00	55.12	N
ATOM	4234	CA PHE B 243	30.259	54.359	59.534	1.00	55.08	C
ATOM	4236	CB PHE B 243	31.418	53.497	60.052	1.00	55.12	C
ATOM	4239	CG PHE B 243	31.996	53.987	61.364	1.00	56.27	C
ATOM	4240	CD1 PHE B 243	31.181	54.146	62.493	1.00	57.56	C
ATOM	4242	CE1 PHE B 243	31.719	54.624	63.733	1.00	57.97	C
ATOM	4244	CZ PHE B 243	33.083	54.941	63.831	1.00	57.54	C
ATOM	4246	CE2 PHE B 243	33.905	54.785	62.705	1.00	57.44	C
ATOM	4248	CD2 PHE B 243	33.356	54.313	61.473	1.00	57.17	C
ATOM	4250	C PHE B 243	30.746	55.749	59.061	1.00	54.73	C
ATOM	4251	O PHE B 243	30.825	56.679	59.865	1.00	55.07	O
ATOM	4252	N SER B 244	31.027	55.904	57.767	1.00	54.22	N
ATOM	4254	CA SER B 244	31.487	57.191	57.211	1.00	53.75	C
ATOM	4256	CB SER B 244	32.064	57.008	55.793	1.00	53.77	C
ATOM	4259	OG SER B 244	31.290	57.702	54.822	1.00	53.38	O
ATOM	4261	C SER B 244	30.385	58.262	57.176	1.00	53.38	C
ATOM	4262	O SER B 244	30.627	59.418	57.535	1.00	53.00	O
ATOM	4263	N ASP B 245	29.188	57.855	56.732	1.00	53.11	N

240

ATOM	4265	CA	ASP B 245	28.019	58.748	56.567	1.00	52.82	C
ATOM	4267	CB	ASP B 245	27.074	58.230	55.443	1.00	52.94	C
ATOM	4270	CG	ASP B 245	27.614	58.476	54.002	1.00	53.62	C
ATOM	4271	OD1	ASP B 245	28.098	59.587	53.682	1.00	55.16	O
ATOM	4272	OD2	ASP B 245	27.548	57.610	53.105	1.00	52.73	O
ATOM	4273	C	ASP B 245	27.179	58.946	57.855	1.00	52.05	C
ATOM	4274	O	ASP B 245	26.117	59.572	57.805	1.00	52.02	O
ATOM	4275	N	GLN B 246	27.652	58.422	58.988	1.00	51.15	N
ATOM	4277	CA	GLN B 246	26.926	58.504	60.267	1.00	50.54	C
ATOM	4279	CB	GLN B 246	27.492	57.455	61.269	1.00	50.73	C
ATOM	4282	CG	GLN B 246	27.233	57.722	62.765	1.00	51.69	C
ATOM	4285	CD	GLN B 246	27.645	56.547	63.672	1.00	53.24	C
ATOM	4286	OE1	GLN B 246	28.817	56.436	64.073	1.00	54.34	O
ATOM	4287	NE2	GLN B 246	26.679	55.685	64.010	1.00	53.27	N
ATOM	4290	C	GLN B 246	26.862	59.957	60.851	1.00	49.48	C
ATOM	4291	O	GLN B 246	25.763	60.470	61.101	1.00	49.52	O
ATOM	4292	N	PRO B 247	28.000	60.615	61.094	1.00	47.95	N
ATOM	4293	CA	PRO B 247	27.991	62.064	61.394	1.00	46.90	C
ATOM	4295	CB	PRO B 247	29.467	62.362	61.741	1.00	47.00	C
ATOM	4298	CG	PRO B 247	30.042	61.036	62.140	1.00	47.48	C
ATOM	4301	CD	PRO B 247	29.359	60.046	61.223	1.00	47.92	C
ATOM	4304	C	PRO B 247	27.476	63.045	60.296	1.00	45.54	C
ATOM	4305	O	PRO B 247	27.150	64.182	60.635	1.00	45.34	O
ATOM	4306	N	LYS B 248	27.396	62.644	59.032	1.00	43.94	N
ATOM	4308	CA	LYS B 248	26.860	63.543	57.990	1.00	42.75	C
ATOM	4310	CB	LYS B 248	27.141	62.964	56.593	1.00	43.13	C
ATOM	4313	CG	LYS B 248	28.639	62.768	56.264	1.00	44.00	C
ATOM	4316	CD	LYS B 248	28.852	62.542	54.752	1.00	44.70	C
ATOM	4319	CE	LYS B 248	30.091	61.695	54.450	1.00	44.85	C
ATOM	4322	NZ	LYS B 248	30.151	61.296	53.010	1.00	44.31	N
ATOM	4326	C	LYS B 248	25.340	63.827	58.140	1.00	40.90	C
ATOM	4327	O	LYS B 248	24.845	64.869	57.686	1.00	40.99	O
ATOM	4328	N	VAL B 249	24.636	62.901	58.797	1.00	38.30	N
ATOM	4330	CA	VAL B 249	23.173	62.868	58.906	1.00	36.28	C
ATOM	4332	CB	VAL B 249	22.743	61.474	59.484	1.00	36.31	C
ATOM	4334	CG1	VAL B 249	21.274	61.419	59.906	1.00	36.23	C
ATOM	4338	CG2	VAL B 249	23.031	60.379	58.478	1.00	36.31	C
ATOM	4342	C	VAL B 249	22.576	63.984	59.767	1.00	34.54	C
ATOM	4343	O	VAL B 249	23.245	64.523	60.642	1.00	34.40	O
ATOM	4344	N	THR B 250	21.311	64.318	59.495	1.00	32.57	N
ATOM	4346	CA	THR B 250	20.513	65.209	60.341	1.00	31.14	C
ATOM	4348	CB	THR B 250	19.124	65.442	59.743	1.00	31.02	C
ATOM	4350	OG1	THR B 250	19.234	66.102	58.486	1.00	31.14	O
ATOM	4352	CG2	THR B 250	18.310	66.419	60.602	1.00	31.00	C
ATOM	4356	C	THR B 250	20.326	64.594	61.720	1.00	29.95	C
ATOM	4357	O	THR B 250	19.559	63.644	61.896	1.00	29.50	O
ATOM	4358	N	PRO B 251	20.989	65.144	62.720	1.00	28.66	N
ATOM	4359	CA	PRO B 251	20.950	64.526	64.051	1.00	27.87	C

241

ATOM	4361	CB	PRO B 251	21.874	65.426	64.886	1.00	27.94	C
ATOM	4364	CG	PRO B 251	22.682	66.181	63.888	1.00	28.33	C
ATOM	4367	CD	PRO B 251	21.791	66.380	62.703	1.00	28.63	C
ATOM	4370	C	PRO B 251	19.522	64.463	64.632	1.00	26.71	C
ATOM	4371	O	PRO B 251	18.680	65.312	64.335	1.00	26.64	O
ATOM	4372	N	TRP B 252	19.263	63.438	65.437	1.00	25.29	N
ATOM	4374	CA	TRP B 252	17.951	63.234	66.046	1.00	23.97	C
ATOM	4376	CB	TRP B 252	17.937	61.878	66.763	1.00	23.92	C
ATOM	4379	CG	TRP B 252	16.605	61.421	67.350	1.00	22.64	C
ATOM	4380	CD1	TRP B 252	16.189	61.540	68.656	1.00	21.21	C
ATOM	4382	NE1	TRP B 252	14.938	60.987	68.802	1.00	20.46	N
ATOM	4384	CE2	TRP B 252	14.520	60.492	67.595	1.00	18.51	C
ATOM	4385	CD2	TRP B 252	15.550	60.747	66.655	1.00	19.31	C
ATOM	4386	CE3	TRP B 252	15.353	60.364	65.323	1.00	17.21	C
ATOM	4388	CZ3	TRP B 252	14.164	59.740	64.978	1.00	16.72	C
ATOM	4390	CH2	TRP B 252	13.156	59.497	65.934	1.00	16.41	C
ATOM	4392	CZ2	TRP B 252	13.310	59.868	67.243	1.00	17.52	C
ATOM	4394	C	TRP B 252	17.730	64.380	67.013	1.00	22.87	C
ATOM	4395	O	TRP B 252	18.638	64.692	67.751	1.00	22.53	O
ATOM	4396	N	PRO B 253	16.565	65.033	66.983	1.00	22.23	N
ATOM	4397	CA	PRO B 253	16.339	66.235	67.787	1.00	22.20	C
ATOM	4399	CB	PRO B 253	15.033	66.803	67.198	1.00	21.68	C
ATOM	4402	CG	PRO B 253	14.333	65.675	66.691	1.00	21.51	C
ATOM	4405	CD	PRO B 253	15.376	64.726	66.170	1.00	22.10	C
ATOM	4408	C	PRO B 253	16.217	66.014	69.315	1.00	22.42	C
ATOM	4409	O	PRO B 253	15.242	65.429	69.778	1.00	22.73	O
ATOM	4410	N	LEU B 254	17.195	66.511	70.065	1.00	22.50	N
ATOM	4412	CA	LEU B 254	17.164	66.496	71.516	1.00	23.12	C
ATOM	4414	CB	LEU B 254	18.599	66.485	72.041	1.00	23.09	C
ATOM	4417	CG	LEU B 254	19.552	65.465	71.399	1.00	23.03	C
ATOM	4419	CD1	LEU B 254	20.903	65.473	72.136	1.00	23.36	C
ATOM	4423	CD2	LEU B 254	18.948	64.066	71.382	1.00	21.36	C
ATOM	4427	C	LEU B 254	16.436	67.733	72.041	1.00	23.58	C
ATOM	4428	O	LEU B 254	16.501	68.767	71.422	1.00	23.69	O
ATOM	4429	N	GLY B 255	15.724	67.619	73.156	1.00	24.43	N
ATOM	4431	CA	GLY B 255	15.173	68.775	73.850	1.00	25.36	C
ATOM	4434	C	GLY B 255	13.829	69.324	73.397	1.00	26.48	C
ATOM	4435	O	GLY B 255	13.453	70.400	73.837	1.00	26.18	O
ATOM	4436	N	ALA B 256	13.094	68.573	72.572	1.00	28.31	N
ATOM	4438	CA	ALA B 256	11.885	69.060	71.870	1.00	29.71	C
ATOM	4440	CB	ALA B 256	11.624	68.177	70.650	1.00	29.61	C
ATOM	4444	C	ALA B 256	10.597	69.136	72.719	1.00	31.22	C
ATOM	4445	O	ALA B 256	10.383	68.285	73.582	1.00	31.35	O
ATOM	4446	N	ASP B 257	9.733	70.131	72.433	1.00	33.04	N
ATOM	4448	CA	ASP B 257	8.375	70.269	73.051	1.00	34.35	C
ATOM	4450	CB	ASP B 257	7.821	71.731	73.009	1.00	34.35	C
ATOM	4453	CG	ASP B 257	8.880	72.813	73.128	1.00	34.61	C
ATOM	4454	OD1	ASP B 257	9.055	73.350	74.248	1.00	34.01	O

242

ATOM	4455	OD2 ASP B 257	9.524	73.240	72.141	1.00	35.06	O
ATOM	4456	C ASP B 257	7.361	69.306	72.349	1.00	35.52	C
ATOM	4457	O ASP B 257	7.794	68.366	71.645	1.00	36.06	O
ATOM	4458	N PRO B 258	6.037	69.522	72.491	1.00	36.59	N
ATOM	4459	CA PRO B 258	5.056	68.687	71.765	1.00	37.00	C
ATOM	4461	CB PRO B 258	3.853	69.637	71.622	1.00	37.07	C
ATOM	4464	CG PRO B 258	3.865	70.424	72.945	1.00	37.12	C
ATOM	4467	CD PRO B 258	5.332	70.530	73.324	1.00	36.62	C
ATOM	4470	C PRO B 258	5.507	68.146	70.392	1.00	37.02	C
ATOM	4471	O PRO B 258	5.474	68.872	69.394	1.00	37.05	O
ATOM	4472	N ALA B 261	5.933	71.527	65.790	1.00	23.53	N
ATOM	4474	CA ALA B 261	5.885	70.485	64.784	1.00	23.40	C
ATOM	4476	CB ALA B 261	4.724	70.738	63.850	1.00	23.75	C
ATOM	4480	C ALA B 261	7.209	70.402	63.997	1.00	23.27	C
ATOM	4481	O ALA B 261	7.431	69.440	63.219	1.00	22.81	O
ATOM	4482	N ASP B 262	8.056	71.421	64.200	1.00	22.75	N
ATOM	4484	CA ASP B 262	9.483	71.415	63.837	1.00	22.57	C
ATOM	4486	CB ASP B 262	10.210	72.484	64.669	1.00	22.41	C
ATOM	4489	CG ASP B 262	11.361	73.132	63.935	1.00	22.49	C
ATOM	4490	OD1 ASP B 262	11.983	72.476	63.082	1.00	22.83	O
ATOM	4491	OD2 ASP B 262	11.726	74.303	64.160	1.00	21.66	O
ATOM	4492	C ASP B 262	10.186	70.036	64.021	1.00	22.69	C
ATOM	4493	O ASP B 262	10.640	69.427	63.040	1.00	22.60	O
ATOM	4494	N ALA B 263	10.259	69.542	65.265	1.00	22.63	N
ATOM	4496	CA ALA B 263	10.984	68.300	65.589	1.00	22.14	C
ATOM	4498	CB ALA B 263	11.027	68.104	67.078	1.00	22.25	C
ATOM	4502	C ALA B 263	10.422	67.041	64.923	1.00	22.12	C
ATOM	4503	O ALA B 263	11.153	66.073	64.671	1.00	21.57	O
ATOM	4504	N ARG B 264	9.124	67.053	64.647	1.00	22.30	N
ATOM	4506	CA ARG B 264	8.460	65.917	63.998	1.00	22.71	C
ATOM	4508	CB ARG B 264	6.940	66.161	63.951	1.00	23.47	C
ATOM	4511	CG ARG B 264	6.098	65.046	64.548	1.00	26.53	C
ATOM	4514	CD ARG B 264	5.610	63.988	63.526	1.00	30.96	C
ATOM	4517	NE ARG B 264	4.850	62.928	64.200	1.00	35.24	N
ATOM	4519	CZ ARG B 264	3.593	63.049	64.663	1.00	38.99	C
ATOM	4520	NH1 ARG B 264	2.910	64.189	64.501	1.00	40.61	N
ATOM	4523	NH2 ARG B 264	3.006	62.017	65.285	1.00	39.67	N
ATOM	4526	C ARG B 264	9.018	65.681	62.576	1.00	21.70	C
ATOM	4527	O ARG B 264	9.176	64.540	62.145	1.00	21.68	O
ATOM	4528	N GLN B 265	9.293	66.789	61.879	1.00	20.57	N
ATOM	4530	CA GLN B 265	9.890	66.828	60.544	1.00	19.35	C
ATOM	4532	CB GLN B 265	9.780	68.263	59.958	1.00	19.49	C
ATOM	4535	CG GLN B 265	9.099	68.373	58.576	1.00	21.01	C
ATOM	4538	CD GLN B 265	9.776	67.519	57.471	1.00	21.91	C
ATOM	4539	OE1 GLN B 265	9.158	66.607	56.923	1.00	21.19	O
ATOM	4540	NE2 GLN B 265	11.038	67.828	57.154	1.00	23.36	N
ATOM	4543	C GLN B 265	11.358	66.407	60.552	1.00	18.25	C
ATOM	4544	O GLN B 265	11.833	65.794	59.599	1.00	17.63	O

243

ATOM	4545	N	GLN B 266	12.086	66.775	61.607	1.00	17.43	N
ATOM	4547	CA	GLN B 266	13.534	66.520	61.670	1.00	16.68	C
ATOM	4549	CB	GLN B 266	14.210	67.367	62.778	1.00	16.42	C
ATOM	4552	CG	GLN B 266	15.749	67.521	62.603	1.00	17.00	C
ATOM	4555	CD	GLN B 266	16.443	68.236	63.777	1.00	17.14	C
ATOM	4556	OE1	GLN B 266	16.095	69.363	64.093	1.00	18.61	O
ATOM	4557	NE2	GLN B 266	17.422	67.586	64.402	1.00	15.38	N
ATOM	4560	C	GLN B 266	13.791	65.019	61.862	1.00	15.63	C
ATOM	4561	O	GLN B 266	14.673	64.433	61.224	1.00	14.42	O
ATOM	4562	N	ARG B 267	13.004	64.420	62.753	1.00	15.02	N
ATOM	4564	CA	ARG B 267	13.029	62.981	62.986	1.00	14.67	C
ATOM	4566	CB	ARG B 267	12.005	62.592	64.037	1.00	14.62	C
ATOM	4569	CG	ARG B 267	12.304	63.045	65.428	1.00	15.59	C
ATOM	4572	CD	ARG B 267	11.209	62.632	66.388	1.00	17.40	C
ATOM	4575	NE	ARG B 267	11.338	63.258	67.702	1.00	18.98	N
ATOM	4577	CZ	ARG B 267	10.404	63.991	68.299	1.00	20.96	C
ATOM	4578	NH1	ARG B 267	9.240	64.242	67.704	1.00	22.06	N
ATOM	4581	NH2	ARG B 267	10.641	64.494	69.505	1.00	21.26	N
ATOM	4584	C	ARG B 267	12.666	62.248	61.711	1.00	14.38	C
ATOM	4585	O	ARG B 267	13.279	61.232	61.376	1.00	14.37	O
ATOM	4586	N	PHE B 268	11.640	62.741	61.016	1.00	13.88	N
ATOM	4588	CA	PHE B 268	11.271	62.153	59.748	1.00	13.74	C
ATOM	4590	CB	PHE B 268	9.980	62.728	59.155	1.00	13.86	C
ATOM	4593	CG	PHE B 268	9.592	62.052	57.858	1.00	15.91	C
ATOM	4594	CD1	PHE B 268	9.120	60.735	57.866	1.00	16.22	C
ATOM	4596	CE1	PHE B 268	8.814	60.083	56.684	1.00	17.48	C
ATOM	4598	CZ	PHE B 268	8.991	60.739	55.470	1.00	18.77	C
ATOM	4600	CE2	PHE B 268	9.475	62.059	55.443	1.00	17.57	C
ATOM	4602	CD2	PHE B 268	9.781	62.700	56.626	1.00	17.00	C
ATOM	4604	C	PHE B 268	12.427	62.256	58.743	1.00	12.92	C
ATOM	4605	O	PHE B 268	12.834	61.260	58.184	1.00	13.32	O
ATOM	4606	N	ALA B 269	12.946	63.450	58.522	1.00	12.15	N
ATOM	4608	CA	ALA B 269	14.138	63.637	57.709	1.00	11.93	C
ATOM	4610	CB	ALA B 269	14.626	65.064	57.821	1.00	11.98	C
ATOM	4614	C	ALA B 269	15.253	62.681	58.096	1.00	11.93	C
ATOM	4615	O	ALA B 269	15.867	62.076	57.228	1.00	11.90	O
ATOM	4616	N	HIS B 270	15.491	62.520	59.396	1.00	12.21	N
ATOM	4618	CA	HIS B 270	16.558	61.652	59.892	1.00	12.77	C
ATOM	4620	CB	HIS B 270	16.608	61.703	61.422	1.00	13.05	C
ATOM	4623	CG	HIS B 270	17.682	60.857	62.044	1.00	13.82	C
ATOM	4624	ND1	HIS B 270	18.985	61.290	62.193	1.00	14.63	N
ATOM	4626	CE1	HIS B 270	19.693	60.351	62.798	1.00	14.72	C
ATOM	4628	NE2	HIS B 270	18.894	59.333	63.065	1.00	14.64	N
ATOM	4630	CD2	HIS B 270	17.628	59.629	62.614	1.00	14.16	C
ATOM	4632	C	HIS B 270	16.372	60.219	59.402	1.00	13.02	C
ATOM	4633	O	HIS B 270	17.323	59.605	58.948	1.00	13.03	O
ATOM	4634	N	PHE B 271	15.135	59.728	59.477	1.00	13.50	N
ATOM	4636	CA	PHE B 271	14.764	58.374	59.086	1.00	14.17	C

244

ATOM	4638	CB	PHE B 271	13.295	58.092	59.458	1.00	14.50	C
ATOM	4641	CG	PHE B 271	13.095	57.360	60.784	1.00	15.95	C
ATOM	4642	CD1	PHE B 271	13.797	57.709	61.926	1.00	17.54	C
ATOM	4644	CE1	PHE B 271	13.596	57.045	63.129	1.00	18.13	C
ATOM	4646	CZ	PHE B 271	12.689	56.049	63.224	1.00	19.25	C
ATOM	4648	CE2	PHE B 271	11.964	55.678	62.103	1.00	20.36	C
ATOM	4650	CD2	PHE B 271	12.166	56.348	60.885	1.00	18.41	C
ATOM	4652	C	PHE B 271	14.936	58.168	57.583	1.00	14.72	C
ATOM	4653	O	PHE B 271	15.368	57.086	57.140	1.00	15.05	O
ATOM	4654	N	THR B 272	14.599	59.198	56.797	1.00	15.02	N
ATOM	4656	CA	THR B 272	14.748	59.149	55.328	1.00	14.87	C
ATOM	4658	CB	THR B 272	14.101	60.368	54.642	1.00	14.56	C
ATOM	4660	OG1	THR B 272	14.749	61.567	55.057	1.00	12.34	O
ATOM	4662	CG2	THR B 272	12.651	60.545	55.069	1.00	14.67	C
ATOM	4666	C	THR B 272	16.219	59.109	54.961	1.00	15.29	C
ATOM	4667	O	THR B 272	16.640	58.450	54.001	1.00	14.04	O
ATOM	4668	N	GLU B 273	16.997	59.818	55.764	1.00	16.21	N
ATOM	4670	CA	GLU B 273	18.405	59.963	55.485	1.00	17.15	C
ATOM	4672	CB	GLU B 273	18.992	61.146	56.242	1.00	17.12	C
ATOM	4675	CG	GLU B 273	18.835	62.413	55.419	1.00	18.24	C
ATOM	4678	CD	GLU B 273	19.309	63.646	56.145	1.00	20.25	C
ATOM	4679	OE1	GLU B 273	18.516	64.607	56.299	1.00	21.67	O
ATOM	4680	OE2	GLU B 273	20.479	63.646	56.548	1.00	20.79	O
ATOM	4681	C	GLU B 273	19.148	58.674	55.741	1.00	17.51	C
ATOM	4682	O	GLU B 273	20.086	58.355	55.009	1.00	18.09	O
ATOM	4683	N	LEU B 274	18.716	57.915	56.740	1.00	17.88	N
ATOM	4685	CA	LEU B 274	19.280	56.589	56.962	1.00	18.24	C
ATOM	4687	CB	LEU B 274	18.919	56.064	58.345	1.00	18.44	C
ATOM	4690	CG	LEU B 274	19.333	56.898	59.559	1.00	20.02	C
ATOM	4692	CD1	LEU B 274	18.910	56.182	60.858	1.00	21.07	C
ATOM	4696	CD2	LEU B 274	20.825	57.222	59.575	1.00	21.28	C
ATOM	4700	C	LEU B 274	18.811	55.611	55.880	1.00	17.93	C
ATOM	4701	O	LEU B 274	19.575	54.755	55.458	1.00	17.46	O
ATOM	4702	N	ALA B 275	17.562	55.768	55.431	1.00	17.83	N
ATOM	4704	CA	ALA B 275	16.987	54.924	54.386	1.00	17.37	C
ATOM	4706	CB	ALA B 275	15.553	55.269	54.142	1.00	16.76	C
ATOM	4710	C	ALA B 275	17.778	55.084	53.118	1.00	18.01	C
ATOM	4711	O	ALA B 275	18.088	54.097	52.466	1.00	18.14	O
ATOM	4712	N	ILE B 276	18.107	56.330	52.770	1.00	18.68	N
ATOM	4714	CA	ILE B 276	18.945	56.613	51.623	1.00	18.96	C
ATOM	4716	CB	ILE B 276	19.214	58.142	51.475	1.00	19.22	C
ATOM	4718	CG1	ILE B 276	17.991	58.845	50.882	1.00	18.43	C
ATOM	4721	CD1	ILE B 276	18.007	60.347	51.022	1.00	17.60	C
ATOM	4725	CG2	ILE B 276	20.450	58.409	50.592	1.00	19.31	C
ATOM	4729	C	ILE B 276	20.244	55.857	51.784	1.00	19.67	C
ATOM	4730	O	ILE B 276	20.620	55.113	50.901	1.00	20.42	O
ATOM	4731	N	ILE B 277	20.919	56.016	52.918	1.00	20.23	N
ATOM	4733	CA	ILE B 277	22.206	55.341	53.135	1.00	20.68	C

245

ATOM	4735	CB	ILE B 277	22.748	55.641	54.560	1.00	20.48	C
ATOM	4737	CG1	ILE B 277	23.202	57.085	54.641	1.00	20.58	C
ATOM	4740	CD1	ILE B 277	23.112	57.656	56.037	1.00	21.64	C
ATOM	4744	CG2	ILE B 277	23.908	54.755	54.926	1.00	20.23	C
ATOM	4748	C	ILE B 277	22.064	53.836	52.885	1.00	21.24	C
ATOM	4749	O	ILE B 277	22.933	53.218	52.296	1.00	21.33	O
ATOM	4750	N	SER B 278	20.948	53.264	53.312	1.00	22.00	N
ATOM	4752	CA	SER B 278	20.710	51.835	53.182	1.00	22.97	C
ATOM	4754	CB	SER B 278	19.534	51.411	54.085	1.00	23.45	C
ATOM	4757	OG	SER B 278	19.807	50.198	54.786	1.00	26.12	O
ATOM	4759	C	SER B 278	20.472	51.437	51.709	1.00	22.73	C
ATOM	4760	O	SER B 278	20.951	50.399	51.241	1.00	22.40	O
ATOM	4761	N	VAL B 279	19.751	52.277	50.979	1.00	22.57	N
ATOM	4763	CA	VAL B 279	19.488	52.021	49.573	1.00	22.50	C
ATOM	4765	CB	VAL B 279	18.607	53.116	48.929	1.00	22.38	C
ATOM	4767	CG1	VAL B 279	18.448	52.853	47.461	1.00	21.66	C
ATOM	4771	CG2	VAL B 279	17.214	53.181	49.587	1.00	22.01	C
ATOM	4775	C	VAL B 279	20.811	51.942	48.829	1.00	22.93	C
ATOM	4776	O	VAL B 279	21.018	51.066	48.020	1.00	23.53	O
ATOM	4777	N	GLN B 280	21.719	52.854	49.118	1.00	23.29	N
ATOM	4779	CA	GLN B 280	23.000	52.877	48.448	1.00	23.37	C
ATOM	4781	CB	GLN B 280	23.704	54.221	48.665	1.00	23.57	C
ATOM	4784	CG	GLN B 280	22.869	55.415	48.141	1.00	25.84	C
ATOM	4787	CD	GLN B 280	23.391	56.815	48.571	1.00	30.13	C
ATOM	4788	OE1	GLN B 280	23.752	57.035	49.747	1.00	32.29	O
ATOM	4789	NE2	GLN B 280	23.406	57.766	47.620	1.00	30.97	N
ATOM	4792	C	GLN B 280	23.850	51.686	48.887	1.00	23.22	C
ATOM	4793	O	GLN B 280	24.576	51.160	48.066	1.00	23.71	O
ATOM	4794	N	GLU B 281	23.756	51.245	50.146	1.00	23.05	N
ATOM	4796	CA	GLU B 281	24.459	50.031	50.609	1.00	23.19	C
ATOM	4798	CB	GLU B 281	24.302	49.865	52.125	1.00	23.69	C
ATOM	4801	CG	GLU B 281	25.233	50.720	52.963	1.00	27.14	C
ATOM	4804	CD	GLU B 281	25.101	50.516	54.491	1.00	31.62	C
ATOM	4805	OE1	GLU B 281	24.386	49.589	54.988	1.00	33.36	O
ATOM	4806	OE2	GLU B 281	25.735	51.323	55.212	1.00	34.33	O
ATOM	4807	C	GLU B 281	23.932	48.741	49.928	1.00	22.41	C
ATOM	4808	O	GLU B 281	24.666	47.794	49.682	1.00	21.37	O
ATOM	4809	N	ILE B 282	22.636	48.715	49.655	1.00	21.99	N
ATOM	4811	CA	ILE B 282	22.018	47.576	49.041	1.00	21.73	C
ATOM	4813	CB	ILE B 282	20.518	47.612	49.272	1.00	21.40	C
ATOM	4815	CG1	ILE B 282	20.200	47.370	50.747	1.00	20.60	C
ATOM	4818	CD1	ILE B 282	18.743	47.703	51.106	1.00	20.68	C
ATOM	4822	CG2	ILE B 282	19.849	46.556	48.433	1.00	21.56	C
ATOM	4826	C	ILE B 282	22.356	47.550	47.543	1.00	21.93	C
ATOM	4827	O	ILE B 282	22.505	46.473	46.962	1.00	22.72	O
ATOM	4828	N	VAL B 283	22.486	48.715	46.919	1.00	21.41	N
ATOM	4830	CA	VAL B 283	22.930	48.769	45.539	1.00	21.34	C
ATOM	4832	CB	VAL B 283	22.949	50.210	44.985	1.00	21.18	C

246

ATOM	4834	CG1 VAL B 283	23.718	50.294	43.702	1.00	21.22	C
ATOM	4838	CG2 VAL B 283	21.549	50.693	44.747	1.00	21.12	C
ATOM	4842	C VAL B 283	24.311	48.160	45.478	1.00	21.51	C
ATOM	4843	O VAL B 283	24.513	47.153	44.831	1.00	21.40	O
ATOM	4844	N ASP B 284	25.244	48.783	46.196	1.00	22.34	N
ATOM	4846	CA ASP B 284	26.652	48.375	46.304	1.00	22.25	C
ATOM	4848	CB ASP B 284	27.385	49.244	47.360	1.00	22.76	C
ATOM	4851	CG ASP B 284	27.596	50.726	46.915	1.00	25.07	C
ATOM	4852	OD1 ASP B 284	28.189	51.505	47.712	1.00	27.18	O
ATOM	4853	OD2 ASP B 284	27.214	51.208	45.809	1.00	28.63	O
ATOM	4854	C ASP B 284	26.788	46.890	46.638	1.00	21.52	C
ATOM	4855	O ASP B 284	27.562	46.213	46.021	1.00	21.44	O
ATOM	4856	N PHE B 285	26.010	46.386	47.586	1.00	21.54	N
ATOM	4858	CA PHE B 285	26.003	44.958	47.926	1.00	21.74	C
ATOM	4860	CB PHE B 285	25.005	44.667	49.037	1.00	21.35	C
ATOM	4863	CG PHE B 285	25.024	43.247	49.502	1.00	20.54	C
ATOM	4864	CD1 PHE B 285	26.159	42.711	50.069	1.00	20.53	C
ATOM	4866	CE1 PHE B 285	26.185	41.370	50.501	1.00	20.89	C
ATOM	4868	CZ PHE B 285	25.076	40.578	50.366	1.00	19.86	C
ATOM	4870	CE2 PHE B 285	23.929	41.115	49.811	1.00	20.65	C
ATOM	4872	CD2 PHE B 285	23.908	42.439	49.374	1.00	20.26	C
ATOM	4874	C PHE B 285	25.649	44.053	46.750	1.00	22.43	C
ATOM	4875	O PHE B 285	26.387	43.118	46.441	1.00	22.74	O
ATOM	4876	N ALA B 286	24.506	44.322	46.125	1.00	22.65	N
ATOM	4878	CA ALA B 286	24.016	43.536	45.005	1.00	22.80	C
ATOM	4880	CB ALA B 286	22.704	44.102	44.525	1.00	22.88	C
ATOM	4884	C ALA B 286	25.016	43.463	43.865	1.00	23.08	C
ATOM	4885	O ALA B 286	25.214	42.411	43.264	1.00	22.81	O
ATOM	4886	N LYS B 287	25.685	44.568	43.596	1.00	23.87	N
ATOM	4888	CA LYS B 287	26.652	44.602	42.517	1.00	25.11	C
ATOM	4890	CB LYS B 287	27.226	46.003	42.344	1.00	25.42	C
ATOM	4893	CG LYS B 287	26.187	46.971	41.748	1.00	28.28	C
ATOM	4896	CD LYS B 287	26.832	48.165	41.063	1.00	31.35	C
ATOM	4899	CE LYS B 287	25.897	49.377	40.980	1.00	32.96	C
ATOM	4902	NZ LYS B 287	26.647	50.645	41.304	1.00	32.73	N
ATOM	4906	C LYS B 287	27.760	43.590	42.722	1.00	25.44	C
ATOM	4907	O LYS B 287	28.361	43.137	41.752	1.00	26.61	O
ATOM	4908	N GLN B 288	28.022	43.224	43.970	1.00	25.27	N
ATOM	4910	CA GLN B 288	29.029	42.219	44.288	1.00	25.25	C
ATOM	4912	CB GLN B 288	29.717	42.573	45.589	1.00	25.77	C
ATOM	4915	CG GLN B 288	29.935	44.035	45.776	1.00	27.24	C
ATOM	4918	CD GLN B 288	31.158	44.290	46.532	1.00	29.33	C
ATOM	4919	OE1 GLN B 288	32.196	44.483	45.934	1.00	35.09	O
ATOM	4920	NE2 GLN B 288	31.075	44.259	47.853	1.00	29.00	N
ATOM	4923	C GLN B 288	28.503	40.805	44.434	1.00	24.86	C
ATOM	4924	O GLN B 288	29.283	39.891	44.558	1.00	24.91	O
ATOM	4925	N VAL B 289	27.195	40.610	44.467	1.00	24.74	N
ATOM	4927	CA VAL B 289	26.660	39.267	44.486	1.00	24.58	C

247

ATOM	4929	CB VAL B 289	25.162	39.251	44.811	1.00	24.53	C
ATOM	4931	CG1 VAL B 289	24.634	37.835	44.812	1.00	24.69	C
ATOM	4935	CG2 VAL B 289	24.921	39.868	46.156	1.00	23.93	C
ATOM	4939	C VAL B 289	26.929	38.717	43.094	1.00	24.83	C
ATOM	4940	O VAL B 289	26.472	39.300	42.122	1.00	25.10	O
ATOM	4941	N PRO B 290	27.678	37.620	42.992	1.00	24.94	N
ATOM	4942	CA PRO B 290	28.052	37.045	41.695	1.00	24.44	C
ATOM	4944	CB PRO B 290	28.777	35.746	42.062	1.00	24.45	C
ATOM	4947	CG PRO B 290	29.202	35.917	43.425	1.00	25.44	C
ATOM	4950	CD PRO B 290	28.174	36.803	44.112	1.00	25.43	C
ATOM	4953	C PRO B 290	26.825	36.690	40.884	1.00	24.08	C
ATOM	4954	O PRO B 290	25.905	36.024	41.437	1.00	23.85	O
ATOM	4955	N GLY B 291	26.833	37.116	39.612	1.00	23.44	N
ATOM	4957	CA GLY B 291	25.735	36.879	38.694	1.00	23.44	C
ATOM	4960	C GLY B 291	24.833	38.077	38.450	1.00	23.12	C
ATOM	4961	O GLY B 291	24.359	38.280	37.328	1.00	23.38	O
ATOM	4962	N PHE B 292	24.613	38.865	39.502	1.00	22.38	N
ATOM	4964	CA PHE B 292	23.731	40.039	39.480	1.00	21.36	C
ATOM	4966	CB PHE B 292	23.776	40.776	40.851	1.00	20.83	C
ATOM	4969	CG PHE B 292	22.739	41.855	40.973	1.00	18.16	C
ATOM	4970	CD1 PHE B 292	21.476	41.554	41.391	1.00	17.24	C
ATOM	4972	CE1 PHE B 292	20.506	42.530	41.450	1.00	17.80	C
ATOM	4974	CZ PHE B 292	20.809	43.828	41.072	1.00	17.38	C
ATOM	4976	CE2 PHE B 292	22.078	44.131	40.657	1.00	16.22	C
ATOM	4978	CD2 PHE B 292	23.020	43.154	40.591	1.00	16.61	C
ATOM	4980	C PHE B 292	23.986	41.031	38.304	1.00	21.31	C
ATOM	4981	O PHE B 292	23.072	41.350	37.526	1.00	20.13	O
ATOM	4982	N LEU B 293	25.219	41.508	38.186	1.00	21.18	N
ATOM	4984	CA LEU B 293	25.568	42.430	37.111	1.00	21.76	C
ATOM	4986	CB LEU B 293	27.022	42.927	37.264	1.00	21.82	C
ATOM	4989	CG LEU B 293	27.303	43.908	38.421	1.00	22.75	C
ATOM	4991	CD1 LEU B 293	28.745	44.210	38.488	1.00	22.25	C
ATOM	4995	CD2 LEU B 293	26.506	45.225	38.324	1.00	24.06	C
ATOM	4999	C LEU B 293	25.341	41.853	35.687	1.00	21.89	C
ATOM	5000	O LEU B 293	25.247	42.629	34.722	1.00	22.16	O
ATOM	5001	N GLN B 294	25.257	40.519	35.553	1.00	21.83	N
ATOM	5003	CA GLN B 294	25.055	39.871	34.241	1.00	21.53	C
ATOM	5005	CB GLN B 294	25.824	38.545	34.149	1.00	22.04	C
ATOM	5008	CG GLN B 294	27.313	38.716	33.899	1.00	22.88	C
ATOM	5011	CD GLN B 294	28.025	39.240	35.129	1.00	24.99	C
ATOM	5012	OE1 GLN B 294	27.859	38.682	36.221	1.00	27.10	O
ATOM	5013	NE2 GLN B 294	28.787	40.333	34.974	1.00	25.18	N
ATOM	5016	C GLN B 294	23.570	39.685	33.869	1.00	20.64	C
ATOM	5017	O GLN B 294	23.257	39.291	32.760	1.00	20.25	O
ATOM	5018	N LEU B 295	22.671	39.985	34.798	1.00	19.78	N
ATOM	5020	CA LEU B 295	21.258	40.109	34.485	1.00	19.15	C
ATOM	5022	CB LEU B 295	20.419	40.160	35.768	1.00	18.87	C
ATOM	5025	CG LEU B 295	20.556	38.976	36.727	1.00	18.40	C

248

ATOM	5027	CD1 LEU B 295	19.715	39.168	38.003	1.00	17.43	C
ATOM	5031	CD2 LEU B 295	20.197	37.685	36.013	1.00	18.60	C
ATOM	5035	C LEU B 295	21.079	41.397	33.705	1.00	19.02	C
ATOM	5036	O LEU B 295	21.824	42.353	33.912	1.00	19.01	O
ATOM	5037	N GLY B 296	20.107	41.431	32.802	1.00	18.97	N
ATOM	5039	CA GLY B 296	19.738	42.676	32.149	1.00	18.83	C
ATOM	5042	C GLY B 296	19.520	43.804	33.148	1.00	18.89	C
ATOM	5043	O GLY B 296	18.954	43.608	34.222	1.00	18.57	O
ATOM	5044	N ARG B 297	19.967	44.997	32.797	1.00	19.04	N
ATOM	5046	CA ARG B 297	19.892	46.109	33.732	1.00	19.82	C
ATOM	5048	CB ARG B 297	20.503	47.381	33.145	1.00	20.40	C
ATOM	5051	CG ARG B 297	20.706	48.509	34.209	1.00	25.47	C
ATOM	5054	CD ARG B 297	21.667	49.639	33.716	1.00	32.84	C
ATOM	5057	NE ARG B 297	21.746	50.888	34.511	1.00	37.15	N
ATOM	5059	CZ ARG B 297	20.774	51.808	34.643	1.00	40.07	C
ATOM	5060	NH1 ARG B 297	19.591	51.645	34.067	1.00	41.83	N
ATOM	5063	NH2 ARG B 297	20.978	52.896	35.381	1.00	40.87	N
ATOM	5066	C ARG B 297	18.464	46.387	34.242	1.00	18.56	C
ATOM	5067	O ARG B 297	18.282	46.799	35.394	1.00	18.69	O
ATOM	5068	N GLU B 298	17.462	46.154	33.410	1.00	17.09	N
ATOM	5070	CA GLU B 298	16.095	46.419	33.822	1.00	16.30	C
ATOM	5072	CB GLU B 298	15.140	46.397	32.633	1.00	16.18	C
ATOM	5075	CG GLU B 298	15.308	47.616	31.754	1.00	16.34	C
ATOM	5078	CD GLU B 298	14.432	47.610	30.516	1.00	17.34	C
ATOM	5079	OE1 GLU B 298	14.145	46.520	29.956	1.00	17.09	O
ATOM	5080	OE2 GLU B 298	14.051	48.725	30.093	1.00	17.25	O
ATOM	5081	C GLU B 298	15.669	45.459	34.917	1.00	15.45	C
ATOM	5082	O GLU B 298	15.004	45.862	35.842	1.00	14.23	O
ATOM	5083	N ASP B 299	16.099	44.208	34.820	1.00	15.32	N
ATOM	5085	CA ASP B 299	15.837	43.212	35.848	1.00	15.38	C
ATOM	5087	CB ASP B 299	16.176	41.816	35.354	1.00	15.65	C
ATOM	5090	CG ASP B 299	15.101	41.240	34.472	1.00	17.26	C
ATOM	5091	OD1 ASP B 299	14.197	42.027	34.084	1.00	17.09	O
ATOM	5092	OD2 ASP B 299	15.079	40.030	34.111	1.00	18.02	O
ATOM	5093	C ASP B 299	16.642	43.493	37.088	1.00	15.54	C
ATOM	5094	O ASP B 299	16.178	43.232	38.182	1.00	15.50	O
ATOM	5095	N GLN B 300	17.854	44.017	36.945	1.00	15.75	N
ATOM	5097	CA GLN B 300	18.616	44.408	38.125	1.00	16.03	C
ATOM	5099	CB GLN B 300	19.960	45.046	37.765	1.00	16.08	C
ATOM	5102	CG GLN B 300	21.037	44.091	37.367	1.00	16.28	C
ATOM	5105	CD GLN B 300	22.162	44.827	36.691	1.00	16.76	C
ATOM	5106	OE1 GLN B 300	22.495	45.921	37.113	1.00	18.65	O
ATOM	5107	NE2 GLN B 300	22.729	44.256	35.635	1.00	17.16	N
ATOM	5110	C GLN B 300	17.801	45.452	38.869	1.00	16.45	C
ATOM	5111	O GLN B 300	17.594	45.347	40.075	1.00	16.44	O
ATOM	5112	N ILE B 301	17.379	46.489	38.147	1.00	16.69	N
ATOM	5114	CA ILE B 301	16.582	47.549	38.751	1.00	17.30	C
ATOM	5116	CB ILE B 301	16.212	48.604	37.713	1.00	17.31	C

249

ATOM	5118	CG1 ILE B 301	17.386	49.547	37.487	1.00	18.26	C
ATOM	5121	CD1 ILE B 301	17.252	50.424	36.211	1.00	18.99	C
ATOM	5125	CG2 ILE B 301	15.010	49.390	38.158	1.00	17.43	C
ATOM	5129	C ILE B 301	15.314	46.991	39.389	1.00	17.65	C
ATOM	5130	O ILE B 301	14.943	47.392	40.474	1.00	18.77	O
ATOM	5131	N ALA B 302	14.653	46.069	38.718	1.00	17.35	N
ATOM	5133	CA ALA B 302	13.410	45.554	39.208	1.00	17.68	C
ATOM	5135	CB ALA B 302	12.670	44.722	38.070	1.00	17.98	C
ATOM	5139	C ALA B 302	13.638	44.702	40.463	1.00	18.37	C
ATOM	5140	O ALA B 302	12.785	44.672	41.359	1.00	18.56	O
ATOM	5141	N LEU B 303	14.763	43.988	40.544	1.00	18.70	N
ATOM	5143	CA LEU B 303	15.010	43.181	41.743	1.00	19.16	C
ATOM	5145	CB LEU B 303	16.131	42.160	41.550	1.00	18.94	C
ATOM	5148	CG LEU B 303	15.921	41.116	40.456	1.00	19.63	C
ATOM	5150	CD1 LEU B 303	17.184	40.296	40.243	1.00	19.51	C
ATOM	5154	CD2 LEU B 303	14.704	40.222	40.770	1.00	20.37	C
ATOM	5158	C LEU B 303	15.315	44.089	42.927	1.00	19.53	C
ATOM	5159	O LEU B 303	14.855	43.820	44.029	1.00	19.40	O
ATOM	5160	N LEU B 304	16.067	45.164	42.696	1.00	20.29	N
ATOM	5162	CA LEU B 304	16.414	46.076	43.770	1.00	21.41	C
ATOM	5164	CB LEU B 304	17.634	46.895	43.428	1.00	21.75	C
ATOM	5167	CG LEU B 304	18.982	46.131	43.413	1.00	24.86	C
ATOM	5169	CD1 LEU B 304	20.059	46.873	42.548	1.00	25.83	C
ATOM	5173	CD2 LEU B 304	19.577	45.925	44.776	1.00	25.83	C
ATOM	5177	C LEU B 304	15.228	46.974	44.198	1.00	21.93	C
ATOM	5178	O LEU B 304	15.114	47.265	45.391	1.00	21.91	O
ATOM	5179	N LYS B 305	14.324	47.362	43.284	1.00	22.09	N
ATOM	5181	CA LYS B 305	13.119	48.093	43.698	1.00	22.86	C
ATOM	5183	CB LYS B 305	12.230	48.461	42.517	1.00	23.46	C
ATOM	5186	CG LYS B 305	12.565	49.779	41.914	1.00	27.72	C
ATOM	5189	CD LYS B 305	11.368	50.518	41.287	1.00	31.54	C
ATOM	5192	CE LYS B 305	11.958	51.725	40.463	1.00	33.94	C
ATOM	5195	NZ LYS B 305	11.003	52.390	39.507	1.00	35.51	N
ATOM	5199	C LYS B 305	12.253	47.312	44.692	1.00	22.71	C
ATOM	5200	O LYS B 305	11.634	47.877	45.582	1.00	23.22	O
ATOM	5201	N ALA B 306	12.176	46.011	44.509	1.00	22.44	N
ATOM	5203	CA ALA B 306	11.287	45.195	45.294	1.00	21.84	C
ATOM	5205	CB ALA B 306	10.852	44.021	44.489	1.00	21.78	C
ATOM	5209	C ALA B 306	11.985	44.734	46.574	1.00	21.85	C
ATOM	5210	O ALA B 306	11.387	44.778	47.648	1.00	21.97	O
ATOM	5211	N SER B 307	13.245	44.298	46.464	1.00	21.25	N
ATOM	5213	CA SER B 307	13.925	43.658	47.592	1.00	20.58	C
ATOM	5215	CB SER B 307	15.040	42.740	47.110	1.00	19.92	C
ATOM	5218	OG SER B 307	15.948	43.478	46.369	1.00	21.56	O
ATOM	5220	C SER B 307	14.491	44.664	48.592	1.00	20.10	C
ATOM	5221	O SER B 307	14.849	44.277	49.686	1.00	20.12	O
ATOM	5222	N THR B 308	14.550	45.947	48.233	1.00	19.53	N
ATOM	5224	CA THR B 308	15.229	46.952	49.060	1.00	18.86	C

250

ATOM	5226	CB	THR B 308	15.309	48.319	48.323	1.00	18.63	C
ATOM	5228	OG1	THR B 308	16.445	48.318	47.466	1.00	16.35	O
ATOM	5230	CG2	THR B 308	15.592	49.455	49.275	1.00	18.82	C
ATOM	5234	C	THR B 308	14.612	47.099	50.456	1.00	18.81	C
ATOM	5235	O	THR B 308	15.308	46.991	51.470	1.00	19.34	O
ATOM	5236	N	ILE B 309	13.318	47.340	50.512	1.00	18.64	N
ATOM	5238	CA	ILE B 309	12.636	47.468	51.791	1.00	18.62	C
ATOM	5240	CB	ILE B 309	11.142	47.861	51.596	1.00	18.32	C
ATOM	5242	CG1	ILE B 309	10.484	48.168	52.933	1.00	18.77	C
ATOM	5245	CD1	ILE B 309	11.060	49.377	53.632	1.00	20.64	C
ATOM	5249	CG2	ILE B 309	10.368	46.774	50.898	1.00	18.60	C
ATOM	5253	C	ILE B 309	12.820	46.171	52.564	1.00	18.73	C
ATOM	5254	O	ILE B 309	13.185	46.183	53.730	1.00	18.87	O
ATOM	5255	N	GLU B 310	12.650	45.045	51.890	1.00	18.92	N
ATOM	5257	CA	GLU B 310	12.748	43.765	52.577	1.00	19.35	C
ATOM	5259	CB	GLU B 310	12.283	42.585	51.681	1.00	19.39	C
ATOM	5262	CG	GLU B 310	10.846	42.760	51.182	1.00	19.11	C
ATOM	5265	CD	GLU B 310	10.416	41.734	50.166	1.00	17.06	C
ATOM	5266	OE1	GLU B 310	10.970	40.632	50.150	1.00	18.95	O
ATOM	5267	OE2	GLU B 310	9.517	42.049	49.385	1.00	15.70	O
ATOM	5268	C	GLU B 310	14.153	43.556	53.164	1.00	19.28	C
ATOM	5269	O	GLU B 310	14.275	43.145	54.297	1.00	20.06	O
ATOM	5270	N	ILE B 311	15.207	43.841	52.426	1.00	19.11	N
ATOM	5272	CA	ILE B 311	16.549	43.727	52.981	1.00	19.43	C
ATOM	5274	CB	ILE B 311	17.584	44.028	51.873	1.00	19.38	C
ATOM	5276	CG1	ILE B 311	17.584	42.886	50.853	1.00	21.23	C
ATOM	5279	CD1	ILE B 311	18.328	43.161	49.548	1.00	21.91	C
ATOM	5283	CG2	ILE B 311	18.974	44.144	52.425	1.00	19.92	C
ATOM	5287	C	ILE B 311	16.668	44.677	54.216	1.00	19.73	C
ATOM	5288	O	ILE B 311	17.214	44.305	55.261	1.00	19.63	O
ATOM	5289	N	MET B 312	16.111	45.888	54.106	1.00	19.63	N
ATOM	5291	CA	MET B 312	16.140	46.851	55.207	1.00	19.06	C
ATOM	5293	CB	MET B 312	15.467	48.164	54.811	1.00	18.57	C
ATOM	5296	CG	MET B 312	16.294	49.026	53.923	1.00	19.46	C
ATOM	5299	SD	MET B 312	15.294	50.248	53.037	1.00	23.22	S
ATOM	5300	CE	MET B 312	15.641	51.542	53.930	1.00	27.05	C
ATOM	5304	C	MET B 312	15.461	46.264	56.451	1.00	18.73	C
ATOM	5305	O	MET B 312	15.933	46.461	57.565	1.00	18.21	O
ATOM	5306	N	LEU B 313	14.357	45.546	56.248	1.00	18.54	N
ATOM	5308	CA	LEU B 313	13.606	44.939	57.357	1.00	18.41	C
ATOM	5310	CB	LEU B 313	12.261	44.396	56.876	1.00	17.85	C
ATOM	5313	CG	LEU B 313	11.193	45.454	56.757	1.00	18.52	C
ATOM	5315	CD1	LEU B 313	10.155	44.996	55.724	1.00	19.77	C
ATOM	5319	CD2	LEU B 313	10.548	45.721	58.115	1.00	18.67	C
ATOM	5323	C	LEU B 313	14.382	43.816	58.035	1.00	18.44	C
ATOM	5324	O	LEU B 313	14.256	43.619	59.221	1.00	16.86	O
ATOM	5325	N	LEU B 314	15.143	43.070	57.238	1.00	19.37	N
ATOM	5327	CA	LEU B 314	16.043	42.042	57.722	1.00	20.48	C

251

ATOM	5329	CB	LEU B 314	16.708	41.300	56.539	1.00	20.72	C
ATOM	5332	CG	LEU B 314	16.283	39.877	56.126	1.00	22.28	C
ATOM	5334	CD1	LEU B 314	15.200	39.194	57.028	1.00	22.02	C
ATOM	5338	CD2	LEU B 314	15.826	39.912	54.674	1.00	24.01	C
ATOM	5342	C	LEU B 314	17.132	42.690	58.574	1.00	20.74	C
ATOM	5343	O	LEU B 314	17.544	42.140	59.580	1.00	20.37	O
ATOM	5344	N	GLU B 315	17.581	43.864	58.144	1.00	21.40	N
ATOM	5346	CA	GLU B 315	18.733	44.534	58.729	1.00	21.89	C
ATOM	5348	CB	GLU B 315	19.338	45.547	57.731	1.00	22.24	C
ATOM	5351	CG	GLU B 315	20.322	44.933	56.737	1.00	23.69	C
ATOM	5354	CD	GLU B 315	21.575	44.379	57.398	1.00	27.48	C
ATOM	5355	OE1	GLU B 315	22.095	45.017	58.310	1.00	31.94	O
ATOM	5356	OE2	GLU B 315	22.056	43.300	57.029	1.00	31.90	O
ATOM	5357	C	GLU B 315	18.300	45.192	60.016	1.00	21.60	C
ATOM	5358	O	GLU B 315	19.024	45.189	61.009	1.00	21.91	O
ATOM	5359	N	THR B 316	17.097	45.733	59.984	1.00	21.60	N
ATOM	5361	CA	THR B 316	16.403	46.195	61.177	1.00	21.80	C
ATOM	5363	CB	THR B 316	15.031	46.791	60.788	1.00	22.31	C
ATOM	5365	OG1	THR B 316	15.237	47.956	59.981	1.00	23.26	O
ATOM	5367	CG2	THR B 316	14.255	47.346	62.002	1.00	22.77	C
ATOM	5371	C	THR B 316	16.246	45.094	62.210	1.00	21.08	C
ATOM	5372	O	THR B 316	16.609	45.283	63.341	1.00	21.20	O
ATOM	5373	N	ALA B 317	15.745	43.935	61.824	1.00	21.00	N
ATOM	5375	CA	ALA B 317	15.554	42.836	62.770	1.00	20.86	C
ATOM	5377	CB	ALA B 317	14.841	41.671	62.116	1.00	20.23	C
ATOM	5381	C	ALA B 317	16.893	42.390	63.328	1.00	21.61	C
ATOM	5382	O	ALA B 317	17.018	42.112	64.524	1.00	20.97	O
ATOM	5383	N	ARG B 318	17.903	42.369	62.463	1.00	22.98	N
ATOM	5385	CA	ARG B 318	19.226	41.827	62.796	1.00	24.26	C
ATOM	5387	CB	ARG B 318	20.116	41.839	61.554	1.00	24.61	C
ATOM	5390	CG	ARG B 318	21.565	41.506	61.785	1.00	27.30	C
ATOM	5393	CD	ARG B 318	22.441	41.899	60.624	1.00	31.26	C
ATOM	5396	NE	ARG B 318	23.506	40.917	60.464	1.00	35.50	N
ATOM	5398	CZ	ARG B 318	23.922	40.419	59.298	1.00	39.04	C
ATOM	5399	NH1	ARG B 318	23.378	40.814	58.141	1.00	40.24	N
ATOM	5402	NH2	ARG B 318	24.899	39.516	59.287	1.00	40.03	N
ATOM	5405	C	ARG B 318	19.865	42.652	63.893	1.00	24.70	C
ATOM	5406	O	ARG B 318	20.676	42.149	64.669	1.00	24.10	O
ATOM	5407	N	ARG B 319	19.481	43.923	63.941	1.00	25.45	N
ATOM	5409	CA	ARG B 319	20.015	44.864	64.915	1.00	26.42	C
ATOM	5411	CB	ARG B 319	20.334	46.168	64.194	1.00	27.16	C
ATOM	5414	CG	ARG B 319	21.829	46.223	63.790	1.00	31.66	C
ATOM	5417	CD	ARG B 319	22.152	47.171	62.655	1.00	36.71	C
ATOM	5420	NE	ARG B 319	22.671	46.475	61.483	1.00	40.23	N
ATOM	5422	CZ	ARG B 319	23.531	47.013	60.638	1.00	43.84	C
ATOM	5423	NH1	ARG B 319	23.969	48.264	60.829	1.00	45.76	N
ATOM	5426	NH2	ARG B 319	23.975	46.303	59.604	1.00	44.34	N
ATOM	5429	C	ARG B 319	19.124	45.106	66.139	1.00	25.53	C

252

ATOM 5430 O ARG B 319	19.473 45.867 67.026 1.00 26.02	O
ATOM 5431 N TYR B 320	17.994 44.421 66.196 1.00 24.69	N
ATOM 5433 CA TYR B 320	17.080 44.492 67.331 1.00 23.67	C
ATOM 5435 CB TYR B 320	15.796 43.722 67.020 1.00 23.61	C
ATOM 5438 CG TYR B 320	14.850 43.664 68.179 1.00 22.41	C
ATOM 5439 CD1 TYR B 320	14.200 44.809 68.620 1.00 22.51	C
ATOM 5441 CE1 TYR B 320	13.309 44.769 69.698 1.00 23.50	C
ATOM 5443 CZ TYR B 320	13.084 43.567 70.356 1.00 23.49	C
ATOM 5444 OH TYR B 320	12.216 43.506 71.426 1.00 22.21	O
ATOM 5446 CE2 TYR B 320	13.735 42.414 69.925 1.00 23.51	C
ATOM 5448 CD2 TYR B 320	14.606 42.470 68.832 1.00 22.26	C
ATOM 5450 C TYR B 320	17.709 43.904 68.573 1.00 22.89	C
ATOM 5451 O TYR B 320	18.388 42.900 68.515 1.00 22.88	O
ATOM 5452 N ASN B 321	17.443 44.534 69.698 1.00 22.27	N
ATOM 5454 CA ASN B 321	18.003 44.149 70.973 1.00 21.53	C
ATOM 5456 CB ASN B 321	19.019 45.211 71.389 1.00 21.58	C
ATOM 5459 CG ASN B 321	19.546 45.038 72.808 1.00 21.22	C
ATOM 5460 OD1 ASN B 321	18.880 44.505 73.707 1.00 21.24	O
ATOM 5461 ND2 ASN B 321	20.753 45.527 73.018 1.00 19.82	N
ATOM 5464 C ASN B 321	16.814 44.048 71.923 1.00 21.27	C
ATOM 5465 O ASN B 321	16.111 45.024 72.171 1.00 19.93	O
ATOM 5466 N HIS B 322	16.588 42.842 72.427 1.00 21.61	N
ATOM 5468 CA HIS B 322	15.390 42.538 73.194 1.00 21.93	C
ATOM 5470 CB HIS B 322	15.038 41.042 73.048 1.00 22.03	C
ATOM 5473 CG HIS B 322	13.659 40.684 73.529 1.00 22.23	C
ATOM 5474 ND1 HIS B 322	12.533 41.407 73.188 1.00 21.02	N
ATOM 5476 CE1 HIS B 322	11.475 40.862 73.759 1.00 21.69	C
ATOM 5478 NE2 HIS B 322	11.872 39.810 74.456 1.00 21.62	N
ATOM 5480 CD2 HIS B 322	13.233 39.681 74.336 1.00 21.10	C
ATOM 5482 C HIS B 322	15.504 42.972 74.668 1.00 21.69	C
ATOM 5483 O HIS B 322	14.503 43.043 75.371 1.00 20.75	O
ATOM 5484 N GLU B 323	16.708 43.279 75.127 1.00 22.24	N
ATOM 5486 CA GLU B 323	16.858 43.883 76.452 1.00 23.45	C
ATOM 5488 CB GLU B 323	18.324 44.065 76.840 1.00 24.19	C
ATOM 5491 CG GLU B 323	19.113 42.867 77.348 1.00 26.76	C
ATOM 5494 CD GLU B 323	20.561 43.291 77.602 1.00 30.16	C
ATOM 5495 OE1 GLU B 323	21.284 43.480 76.576 1.00 31.88	O
ATOM 5496 OE2 GLU B 323	20.948 43.500 78.797 1.00 30.01	O
ATOM 5497 C GLU B 323	16.234 45.280 76.497 1.00 23.08	C
ATOM 5498 O GLU B 323	15.527 45.616 77.451 1.00 23.13	O
ATOM 5499 N THR B 324	16.547 46.085 75.474 1.00 22.66	N
ATOM 5501 CA THR B 324	16.163 47.498 75.392 1.00 21.95	C
ATOM 5503 CB THR B 324	17.344 48.329 74.827 1.00 21.80	C
ATOM 5505 OG1 THR B 324	17.583 47.969 73.465 1.00 21.23	O
ATOM 5507 CG2 THR B 324	18.657 47.994 75.515 1.00 20.93	C
ATOM 5511 C THR B 324	14.920 47.715 74.514 1.00 21.94	C
ATOM 5512 O THR B 324	14.306 48.787 74.536 1.00 21.72	O
ATOM 5513 N GLU B 325	14.554 46.685 73.756 1.00 22.08	N

253

ATOM	5515	CA	GLU B 325	13.502	46.756	72.736	1.00	22.38	C
ATOM	5517	CB	GLU B 325	12.116	46.851	73.401	1.00	22.40	C
ATOM	5520	CG	GLU B 325	11.987	45.854	74.552	1.00	24.15	C
ATOM	5523	CD	GLU B 325	10.606	45.742	75.186	1.00	26.69	C
ATOM	5524	OE1	GLU B 325	10.458	46.045	76.403	1.00	27.58	O
ATOM	5525	OE2	GLU B 325	9.676	45.302	74.487	1.00	29.29	O
ATOM	5526	C	GLU B 325	13.801	47.867	71.712	1.00	22.25	C
ATOM	5527	O	GLU B 325	12.936	48.611	71.302	1.00	21.35	O
ATOM	5528	N	CYS B 326	15.058	47.939	71.299	1.00	22.98	N
ATOM	5530	CA	CYS B 326	15.511	48.981	70.405	1.00	23.87	C
ATOM	5532	CB	CYS B 326	16.413	49.983	71.132	1.00	23.67	C
ATOM	5535	SG	CYS B 326	15.550	51.068	72.285	1.00	21.30	S
ATOM	5536	C	CYS B 326	16.286	48.416	69.240	1.00	25.69	C
ATOM	5537	O	CYS B 326	17.039	47.443	69.379	1.00	26.02	O
ATOM	5538	N	ILE B 327	16.126	49.093	68.106	1.00	27.55	N
ATOM	5540	CA	ILE B 327	16.757	48.752	66.845	1.00	28.95	C
ATOM	5542	CB	ILE B 327	15.708	48.907	65.725	1.00	28.96	C
ATOM	5544	CG1	ILE B 327	15.026	47.557	65.493	1.00	29.19	C
ATOM	5547	CD1	ILE B 327	13.599	47.545	65.870	1.00	29.18	C
ATOM	5551	CG2	ILE B 327	16.303	49.455	64.451	1.00	28.76	C
ATOM	5555	C	ILE B 327	17.955	49.657	66.619	1.00	30.54	C
ATOM	5556	O	ILE B 327	17.883	50.865	66.817	1.00	30.82	O
ATOM	5557	N	THR B 328	19.056	49.049	66.197	1.00	32.63	N
ATOM	5559	CA	THR B 328	20.318	49.747	65.921	1.00	34.04	C
ATOM	5561	CB	THR B 328	21.492	48.901	66.500	1.00	33.69	C
ATOM	5563	OG1	THR B 328	21.413	48.902	67.934	1.00	33.36	O
ATOM	5565	CG2	THR B 328	22.852	49.507	66.178	1.00	33.49	C
ATOM	5569	C	THR B 328	20.484	50.039	64.391	1.00	35.61	C
ATOM	5570	O	THR B 328	20.061	49.246	63.527	1.00	36.66	O
ATOM	5571	N	PHE B 329	21.045	51.196	64.055	1.00	36.68	N
ATOM	5573	CA	PHE B 329	21.391	51.481	62.674	1.00	37.46	C
ATOM	5575	CB	PHE B 329	20.269	52.256	61.999	1.00	37.23	C
ATOM	5578	CG	PHE B 329	20.046	51.887	60.547	1.00	35.32	C
ATOM	5579	CD1	PHE B 329	19.591	50.585	60.170	1.00	33.51	C
ATOM	5581	CE1	PHE B 329	19.370	50.251	58.774	1.00	32.44	C
ATOM	5583	CZ	PHE B 329	19.600	51.240	57.779	1.00	32.28	C
ATOM	5585	CE2	PHE B 329	20.061	52.534	58.160	1.00	32.50	C
ATOM	5587	CD2	PHE B 329	20.277	52.845	59.539	1.00	33.37	C
ATOM	5589	C	PHE B 329	22.685	52.267	62.636	1.00	38.95	C
ATOM	5590	O	PHE B 329	23.031	52.983	63.605	1.00	39.29	O
ATOM	5591	N	ALA B 330	23.401	52.110	61.519	1.00	40.52	N
ATOM	5593	CA	ALA B 330	24.692	52.784	61.250	1.00	41.72	C
ATOM	5595	CB	ALA B 330	24.448	54.292	60.856	1.00	41.87	C
ATOM	5599	C	ALA B 330	25.755	52.665	62.382	1.00	42.50	C
ATOM	5600	O	ALA B 330	26.510	53.613	62.635	1.00	42.94	O
ATOM	5601	N	LYS B 331	25.796	51.501	63.047	1.00	42.97	N
ATOM	5603	CA	LYS B 331	26.769	51.187	64.109	1.00	42.98	C
ATOM	5605	CB	LYS B 331	28.154	51.807	63.813	1.00	43.35	C

254

ATOM	5608	CG	LYS B 331	29.367	50.949	64.245	1.00	44.35	C
ATOM	5611	CD	LYS B 331	30.132	51.529	65.477	1.00	44.51	C
ATOM	5614	CE	LYS B 331	31.650	51.256	65.436	1.00	43.98	C
ATOM	5617	NZ	LYS B 331	32.088	50.219	66.425	1.00	43.27	N
ATOM	5621	C	LYS B 331	26.321	51.574	65.528	1.00	42.54	C
ATOM	5622	O	LYS B 331	26.393	50.745	66.441	1.00	42.68	O
ATOM	5623	N	ASP B 332	25.870	52.816	65.715	1.00	41.85	N
ATOM	5625	CA	ASP B 332	25.744	53.405	67.066	1.00	41.27	C
ATOM	5627	CB	ASP B 332	26.648	54.643	67.166	1.00	41.37	C
ATOM	5630	CG	ASP B 332	27.916	54.376	67.939	1.00	43.32	C
ATOM	5631	OD1	ASP B 332	27.800	53.754	69.015	1.00	45.82	O
ATOM	5632	OD2	ASP B 332	29.066	54.755	67.569	1.00	45.99	O
ATOM	5633	C	ASP B 332	24.324	53.807	67.519	1.00	40.06	C
ATOM	5634	O	ASP B 332	23.973	53.629	68.694	1.00	40.21	O
ATOM	5635	N	PHE B 333	23.535	54.375	66.597	1.00	38.31	N
ATOM	5637	CA	PHE B 333	22.264	55.048	66.929	1.00	36.53	C
ATOM	5639	CB	PHE B 333	21.821	55.986	65.783	1.00	36.85	C
ATOM	5642	CG	PHE B 333	22.803	57.109	65.449	1.00	37.25	C
ATOM	5643	CD1	PHE B 333	22.727	57.744	64.202	1.00	37.78	C
ATOM	5645	CE1	PHE B 333	23.602	58.776	63.859	1.00	37.52	C
ATOM	5647	CZ	PHE B 333	24.579	59.191	64.762	1.00	37.96	C
ATOM	5649	CE2	PHE B 333	24.676	58.572	66.010	1.00	38.44	C
ATOM	5651	CD2	PHE B 333	23.782	57.535	66.354	1.00	38.00	C
ATOM	5653	C	PHE B 333	21.173	54.003	67.152	1.00	34.39	C
ATOM	5654	O	PHE B 333	21.133	53.011	66.425	1.00	34.49	O
ATOM	5655	N	THR B 334	20.298	54.213	68.142	1.00	31.37	N
ATOM	5657	CA	THR B 334	19.233	53.245	68.423	1.00	28.90	C
ATOM	5659	CB	THR B 334	19.489	52.472	69.735	1.00	28.73	C
ATOM	5661	OG1	THR B 334	19.395	53.347	70.856	1.00	27.84	O
ATOM	5663	CG2	THR B 334	20.913	51.951	69.798	1.00	28.88	C
ATOM	5667	C	THR B 334	17.885	53.907	68.487	1.00	27.01	C
ATOM	5668	O	THR B 334	17.776	55.056	68.881	1.00	26.50	O
ATOM	5669	N	TYR B 335	16.857	53.163	68.094	1.00	25.11	N
ATOM	5671	CA	TYR B 335	15.482	53.674	68.054	1.00	23.96	C
ATOM	5673	CB	TYR B 335	15.043	53.947	66.594	1.00	23.57	C
ATOM	5676	CG	TYR B 335	16.081	54.764	65.863	1.00	22.27	C
ATOM	5677	CD1	TYR B 335	17.128	54.140	65.207	1.00	20.83	C
ATOM	5679	CE1	TYR B 335	18.116	54.874	64.591	1.00	21.68	C
ATOM	5681	CZ	TYR B 335	18.077	56.255	64.643	1.00	21.74	C
ATOM	5682	OH	TYR B 335	19.076	56.954	64.007	1.00	22.73	O
ATOM	5684	CE2	TYR B 335	17.057	56.908	65.313	1.00	20.42	C
ATOM	5686	CD2	TYR B 335	16.070	56.163	65.920	1.00	20.65	C
ATOM	5688	C	TYR B 335	14.527	52.719	68.769	1.00	23.17	C
ATOM	5689	O	TYR B 335	14.706	51.506	68.715	1.00	22.58	O
ATOM	5690	N	SER B 336	13.536	53.282	69.456	1.00	22.23	N
ATOM	5692	CA	SER B 336	12.465	52.499	70.058	1.00	21.91	C
ATOM	5694	CB	SER B 336	12.186	53.014	71.455	1.00	21.67	C
ATOM	5697	OG	SER B 336	11.627	54.304	71.383	1.00	20.32	O

255

ATOM	5699	C	SER B 336	11.171	52.601	69.229	1.00	22.21	C
ATOM	5700	O	SER B 336	11.056	53.445	68.355	1.00	22.11	O
ATOM	5701	N	LYS B 337	10.192	51.751	69.532	1.00	22.30	N
ATOM	5703	CA	LYS B 337	8.848	51.861	68.971	1.00	22.58	C
ATOM	5705	CB	LYS B 337	7.838	51.000	69.766	1.00	22.86	C
ATOM	5708	CG	LYS B 337	7.845	49.503	69.388	1.00	25.37	C
ATOM	5711	CD	LYS B 337	6.937	48.610	70.288	1.00	28.27	C
ATOM	5714	CE	LYS B 337	7.472	48.443	71.774	1.00	29.61	C
ATOM	5717	NZ	LYS B 337	8.733	47.647	71.941	1.00	28.77	N
ATOM	5721	C	LYS B 337	8.395	53.315	68.969	1.00	22.19	C
ATOM	5722	O	LYS B 337	7.792	53.773	68.012	1.00	22.00	O
ATOM	5723	N	ASP B 338	8.688	54.035	70.047	1.00	22.23	N
ATOM	5725	CA	ASP B 338	8.183	55.401	70.219	1.00	22.28	C
ATOM	5727	CB	ASP B 338	8.176	55.799	71.694	1.00	22.08	C
ATOM	5730	CG	ASP B 338	7.074	55.120	72.462	1.00	22.94	C
ATOM	5731	OD1	ASP B 338	6.945	55.394	73.666	1.00	26.13	O
ATOM	5732	OD2	ASP B 338	6.268	54.313	71.955	1.00	23.05	O
ATOM	5733	C	ASP B 338	8.939	56.433	69.387	1.00	22.00	C
ATOM	5734	O	ASP B 338	8.362	57.451	69.002	1.00	21.99	O
ATOM	5735	N	ASP B 339	10.217	56.178	69.122	1.00	21.47	N
ATOM	5737	CA	ASP B 339	10.983	57.016	68.209	1.00	21.22	C
ATOM	5739	CB	ASP B 339	12.451	56.590	68.187	1.00	21.14	C
ATOM	5742	CG	ASP B 339	13.153	56.814	69.514	1.00	19.12	C
ATOM	5743	OD1	ASP B 339	12.607	57.516	70.397	1.00	18.47	O
ATOM	5744	OD2	ASP B 339	14.272	56.317	69.737	1.00	15.17	O
ATOM	5745	C	ASP B 339	10.395	56.922	66.805	1.00	21.49	C
ATOM	5746	O	ASP B 339	10.181	57.936	66.157	1.00	21.88	O
ATOM	5747	N	PHE B 340	10.124	55.703	66.355	1.00	21.61	N
ATOM	5749	CA	PHE B 340	9.421	55.456	65.104	1.00	22.23	C
ATOM	5751	CB	PHE B 340	9.155	53.956	64.950	1.00	22.07	C
ATOM	5754	CG	PHE B 340	10.312	53.168	64.340	1.00	22.43	C
ATOM	5755	CD1	PHE B 340	11.454	52.904	65.060	1.00	21.40	C
ATOM	5757	CE1	PHE B 340	12.484	52.181	64.526	1.00	21.44	C
ATOM	5759	CZ	PHE B 340	12.390	51.679	63.267	1.00	24.00	C
ATOM	5761	CE2	PHE B 340	11.249	51.897	62.520	1.00	24.73	C
ATOM	5763	CD2	PHE B 340	10.217	52.643	63.057	1.00	24.99	C
ATOM	5765	C	PHE B 340	8.085	56.224	65.016	1.00	23.08	C
ATOM	5766	O	PHE B 340	7.752	56.773	63.975	1.00	22.89	O
ATOM	5767	N	HIS B 341	7.337	56.258	66.119	1.00	24.44	N
ATOM	5769	CA	HIS B 341	6.057	56.966	66.211	1.00	25.29	C
ATOM	5771	CB	HIS B 341	5.207	56.459	67.399	1.00	25.49	C
ATOM	5774	CG	HIS B 341	3.867	57.130	67.497	1.00	29.92	C
ATOM	5775	ND1	HIS B 341	2.912	57.037	66.504	1.00	34.31	N
ATOM	5777	CE1	HIS B 341	1.857	57.767	66.834	1.00	35.62	C
ATOM	5779	NE2	HIS B 341	2.092	58.339	68.004	1.00	35.84	N
ATOM	5781	CD2	HIS B 341	3.349	57.971	68.434	1.00	34.74	C
ATOM	5783	C	HIS B 341	6.269	58.470	66.325	1.00	25.32	C
ATOM	5784	O	HIS B 341	5.413	59.248	65.912	1.00	25.52	O

256

ATOM	5785	N	ARG B 342	7.403	58.886	66.884	1.00	25.67	N
ATOM	5787	CA	ARG B 342	7.733	60.315	67.005	1.00	25.80	C
ATOM	5789	CB	ARG B 342	8.877	60.541	67.983	1.00	26.04	C
ATOM	5792	CG	ARG B 342	8.462	60.654	69.435	1.00	27.57	C
ATOM	5795	CD	ARG B 342	9.666	60.676	70.390	1.00	29.94	C
ATOM	5798	NE	ARG B 342	9.657	59.520	71.283	1.00	31.90	N
ATOM	5800	CZ	ARG B 342	9.249	59.536	72.543	1.00	33.91	C
ATOM	5801	NH1	ARG B 342	8.818	60.659	73.121	1.00	34.20	N
ATOM	5804	NH2	ARG B 342	9.271	58.405	73.236	1.00	35.42	N
ATOM	5807	C	ARG B 342	8.138	60.889	65.663	1.00	25.34	C
ATOM	5808	O	ARG B 342	8.109	62.099	65.486	1.00	25.43	O
ATOM	5809	N	ALA B 343	8.526	60.000	64.743	1.00	24.91	N
ATOM	5811	CA	ALA B 343	8.843	60.320	63.348	1.00	24.59	C
ATOM	5813	CB	ALA B 343	9.897	59.295	62.806	1.00	24.44	C
ATOM	5817	C	ALA B 343	7.596	60.310	62.444	1.00	24.35	C
ATOM	5818	O	ALA B 343	7.723	60.401	61.238	1.00	24.68	O
ATOM	5819	N	GLY B 344	6.406	60.159	63.031	1.00	24.10	N
ATOM	5821	CA	GLY B 344	5.129	60.248	62.335	1.00	23.57	C
ATOM	5824	C	GLY B 344	4.644	58.972	61.669	1.00	23.22	C
ATOM	5825	O	GLY B 344	3.623	58.977	60.969	1.00	23.29	O
ATOM	5826	N	LEU B 345	5.386	57.883	61.834	1.00	22.86	N
ATOM	5828	CA	LEU B 345	4.956	56.594	61.301	1.00	22.72	C
ATOM	5830	CB	LEU B 345	6.100	55.563	61.268	1.00	22.72	C
ATOM	5833	CG	LEU B 345	7.542	55.885	60.835	1.00	22.71	C
ATOM	5835	CD1	LEU B 345	8.243	54.642	60.289	1.00	23.31	C
ATOM	5839	CD2	LEU B 345	7.591	56.950	59.811	1.00	23.73	C
ATOM	5843	C	LEU B 345	3.789	56.098	62.161	1.00	22.68	C
ATOM	5844	O	LEU B 345	3.644	56.491	63.315	1.00	22.90	O
ATOM	5845	N	GLN B 346	2.941	55.263	61.577	1.00	22.89	N
ATOM	5847	CA	GLN B 346	1.715	54.789	62.221	1.00	22.82	C
ATOM	5849	CB	GLN B 346	0.550	54.784	61.225	1.00	22.68	C
ATOM	5852	CG	GLN B 346	0.687	53.739	60.126	1.00	22.89	C
ATOM	5855	CD	GLN B 346	-0.168	53.998	58.906	1.00	22.91	C
ATOM	5856	OE1	GLN B 346	-1.027	54.876	58.899	1.00	25.22	O
ATOM	5857	NE2	GLN B 346	0.059	53.219	57.874	1.00	22.78	N
ATOM	5860	C	GLN B 346	1.919	53.394	62.798	1.00	22.78	C
ATOM	5861	O	GLN B 346	2.836	52.673	62.400	1.00	22.46	O
ATOM	5862	N	VAL B 347	1.042	53.025	63.724	1.00	22.81	N
ATOM	5864	CA	VAL B 347	1.178	51.779	64.471	1.00	22.84	C
ATOM	5866	CB	VAL B 347	0.220	51.775	65.691	1.00	23.00	C
ATOM	5868	CG1	VAL B 347	-0.117	50.386	66.156	1.00	23.34	C
ATOM	5872	CG2	VAL B 347	0.876	52.539	66.834	1.00	23.60	C
ATOM	5876	C	VAL B 347	1.004	50.553	63.575	1.00	22.61	C
ATOM	5877	O	VAL B 347	1.561	49.473	63.850	1.00	22.18	O
ATOM	5878	N	GLU B 348	0.288	50.742	62.474	1.00	22.39	N
ATOM	5880	CA	GLU B 348	-0.002	49.652	61.540	1.00	22.40	C
ATOM	5882	CB	GLU B 348	-1.058	50.089	60.518	1.00	22.76	C
ATOM	5885	CG	GLU B 348	-2.452	50.344	61.111	1.00	24.13	C

257

ATOM	5888	CD	GLU B 348	-2.650	51.716	61.766	1.00	27.04	C
ATOM	5889	OE1	GLU B 348	-1.883	52.665	61.519	1.00	28.52	O
ATOM	5890	OE2	GLU B 348	-3.600	51.859	62.559	1.00	30.28	O
ATOM	5891	C	GLU B 348	1.258	49.093	60.860	1.00	21.34	C
ATOM	5892	O	GLU B 348	1.242	47.973	60.369	1.00	20.76	O
ATOM	5893	N	PHE B 349	2.345	49.868	60.901	1.00	20.77	N
ATOM	5895	CA	PHE B 349	3.660	49.505	60.322	1.00	20.45	C
ATOM	5897	CB	PHE B 349	4.142	50.643	59.376	1.00	20.64	C
ATOM	5900	CG	PHE B 349	5.471	50.394	58.677	1.00	20.78	C
ATOM	5901	CD1	PHE B 349	5.748	49.196	58.058	1.00	21.02	C
ATOM	5903	CE1	PHE B 349	6.962	48.998	57.425	1.00	20.54	C
ATOM	5905	CZ	PHE B 349	7.903	50.006	57.374	1.00	19.72	C
ATOM	5907	CE2	PHE B 349	7.641	51.199	57.957	1.00	19.91	C
ATOM	5909	CD2	PHE B 349	6.433	51.401	58.611	1.00	21.36	C
ATOM	5911	C	PHE B 349	4.690	49.228	61.413	1.00	19.62	C
ATOM	5912	O	PHE B 349	5.443	48.274	61.329	1.00	19.67	O
ATOM	5913	N	ILE B 350	4.695	50.055	62.444	1.00	19.19	N
ATOM	5915	CA	ILE B 350	5.594	49.897	63.577	1.00	18.87	C
ATOM	5917	CB	ILE B 350	5.414	51.034	64.548	1.00	18.54	C
ATOM	5919	CG1	ILE B 350	5.726	52.360	63.858	1.00	17.95	C
ATOM	5922	CD1	ILE B 350	5.383	53.531	64.691	1.00	17.74	C
ATOM	5926	CG2	ILE B 350	6.334	50.832	65.753	1.00	19.48	C
ATOM	5930	C	ILE B 350	5.409	48.581	64.329	1.00	19.09	C
ATOM	5931	O	ILE B 350	6.384	47.876	64.572	1.00	19.31	O
ATOM	5932	N	ASN B 351	4.181	48.239	64.704	1.00	19.09	N
ATOM	5934	CA	ASN B 351	3.950	46.965	65.412	1.00	19.26	C
ATOM	5936	CB	ASN B 351	2.492	46.861	65.878	1.00	19.30	C
ATOM	5939	CG	ASN B 351	2.216	47.712	67.152	1.00	20.22	C
ATOM	5940	OD1	ASN B 351	3.090	48.471	67.620	1.00	21.96	O
ATOM	5941	ND2	ASN B 351	1.007	47.591	67.700	1.00	18.64	N
ATOM	5944	C	ASN B 351	4.444	45.666	64.696	1.00	19.13	C
ATOM	5945	O	ASN B 351	5.173	44.873	65.296	1.00	19.31	O
ATOM	5946	N	PRO B 352	4.075	45.437	63.440	1.00	18.65	N
ATOM	5947	CA	PRO B 352	4.681	44.364	62.662	1.00	18.12	C
ATOM	5949	CB	PRO B 352	4.065	44.552	61.266	1.00	18.43	C
ATOM	5952	CG	PRO B 352	2.818	45.308	61.446	1.00	18.44	C
ATOM	5955	CD	PRO B 352	2.988	46.109	62.701	1.00	19.18	C
ATOM	5958	C	PRO B 352	6.207	44.405	62.573	1.00	18.36	C
ATOM	5959	O	PRO B 352	6.810	43.341	62.449	1.00	17.33	O
ATOM	5960	N	ILE B 353	6.825	45.592	62.589	1.00	18.97	N
ATOM	5962	CA	ILE B 353	8.288	45.681	62.464	1.00	19.14	C
ATOM	5964	CB	ILE B 353	8.774	47.129	62.282	1.00	19.20	C
ATOM	5966	CG1	ILE B 353	8.540	47.569	60.853	1.00	19.84	C
ATOM	5969	CD1	ILE B 353	8.603	49.046	60.689	1.00	20.86	C
ATOM	5973	CG2	ILE B 353	10.270	47.257	62.522	1.00	19.89	C
ATOM	5977	C	ILE B 353	8.914	45.071	63.688	1.00	19.17	C
ATOM	5978	O	ILE B 353	9.826	44.235	63.586	1.00	19.15	O
ATOM	5979	N	PHE B 354	8.403	45.469	64.848	1.00	19.09	N

258

ATOM	5981	CA	PHE B 354	8.901	44.932	66.096	1.00	19.08	C
ATOM	5983	CB	PHE B 354	8.569	45.857	67.270	1.00	18.93	C
ATOM	5986	CG	PHE B 354	9.445	47.079	67.300	1.00	19.28	C
ATOM	5987	CD1	PHE B 354	9.290	48.079	66.355	1.00	20.06	C
ATOM	5989	CE1	PHE B 354	10.109	49.170	66.355	1.00	20.21	C
ATOM	5991	CZ	PHE B 354	11.132	49.277	67.298	1.00	19.30	C
ATOM	5993	CE2	PHE B 354	11.310	48.294	68.222	1.00	18.03	C
ATOM	5995	CD2	PHE B 354	10.477	47.194	68.215	1.00	19.43	C
ATOM	5997	C	PHE B 354	8.503	43.477	66.317	1.00	19.16	C
ATOM	5998	O	PHE B 354	9.312	42.712	66.838	1.00	19.01	O
ATOM	5999	N	GLU B 355	7.319	43.044	65.896	1.00	19.55	N
ATOM	6001	CA	GLU B 355	7.033	41.602	65.991	1.00	20.22	C
ATOM	6003	CB	GLU B 355	5.584	41.249	65.739	1.00	20.39	C
ATOM	6006	CG	GLU B 355	5.296	39.739	65.801	1.00	23.59	C
ATOM	6009	CD	GLU B 355	5.522	39.066	67.171	1.00	27.11	C
ATOM	6010	OE1	GLU B 355	5.991	37.908	67.182	1.00	28.26	O
ATOM	6011	OE2	GLU B 355	5.219	39.653	68.243	1.00	28.91	O
ATOM	6012	C	GLU B 355	7.942	40.799	65.060	1.00	19.88	C
ATOM	6013	O	GLU B 355	8.464	39.773	65.459	1.00	20.45	O
ATOM	6014	N	PHE B 356	8.166	41.274	63.848	1.00	19.33	N
ATOM	6016	CA	PHE B 356	9.088	40.612	62.932	1.00	18.97	C
ATOM	6018	CB	PHE B 356	9.210	41.408	61.611	1.00	19.21	C
ATOM	6021	CG	PHE B 356	10.122	40.802	60.606	1.00	18.35	C
ATOM	6022	CD1	PHE B 356	9.882	39.551	60.088	1.00	18.72	C
ATOM	6024	CE1	PHE B 356	10.727	38.969	59.145	1.00	18.09	C
ATOM	6026	CZ	PHE B 356	11.821	39.619	58.715	1.00	17.73	C
ATOM	6028	CE2	PHE B 356	12.097	40.874	59.215	1.00	20.41	C
ATOM	6030	CD2	PHE B 356	11.224	41.485	60.159	1.00	20.15	C
ATOM	6032	C	PHE B 356	10.432	40.500	63.603	1.00	19.01	C
ATOM	6033	O	PHE B 356	11.023	39.428	63.586	1.00	19.67	O
ATOM	6034	N	SER B 357	10.923	41.593	64.200	1.00	18.61	N
ATOM	6036	CA	SER B 357	12.296	41.620	64.729	1.00	17.87	C
ATOM	6038	CB	SER B 357	12.710	43.013	65.216	1.00	17.62	C
ATOM	6041	OG	SER B 357	12.580	43.997	64.238	1.00	15.55	O
ATOM	6043	C	SER B 357	12.396	40.664	65.895	1.00	18.01	C
ATOM	6044	O	SER B 357	13.426	40.073	66.128	1.00	18.36	O
ATOM	6045	N	ARG B 358	11.324	40.554	66.657	1.00	18.41	N
ATOM	6047	CA	ARG B 358	11.293	39.684	67.808	1.00	18.89	C
ATOM	6049	CB	ARG B 358	10.030	39.931	68.629	1.00	19.21	C
ATOM	6052	CG	ARG B 358	10.115	41.017	69.672	1.00	20.39	C
ATOM	6055	CD	ARG B 358	8.930	41.002	70.639	1.00	23.01	C
ATOM	6058	NE	ARG B 358	7.661	41.293	69.956	1.00	24.62	N
ATOM	6060	CZ	ARG B 358	7.142	42.516	69.770	1.00	25.65	C
ATOM	6061	NH1	ARG B 358	7.758	43.611	70.218	1.00	26.41	N
ATOM	6064	NH2	ARG B 358	5.992	42.659	69.119	1.00	25.90	N
ATOM	6067	C	ARG B 358	11.299	38.249	67.294	1.00	19.27	C
ATOM	6068	O	ARG B 358	12.017	37.381	67.822	1.00	19.25	O
ATOM	6069	N	ALA B 359	10.488	38.008	66.257	1.00	19.38	N

ATOM	6071	CA	ALA B 359	10.382	36.691	65.644	1.00	19.20	C
ATOM	6073	CB	ALA B 359	9.350	36.675	64.528	1.00	19.07	C
ATOM	6077	C	ALA B 359	11.739	36.306	65.125	1.00	19.31	C
ATOM	6078	O	ALA B 359	12.208	35.214	65.409	1.00	19.67	O
ATOM	6079	N	MET B 360	12.387	37.216	64.405	1.00	19.46	N
ATOM	6081	CA	MET B 360	13.712	36.946	63.853	1.00	20.16	C
ATOM	6083	CB	MET B 360	14.200	38.114	62.979	1.00	20.19	C
ATOM	6086	CG	MET B 360	13.500	38.234	61.638	1.00	20.34	C
ATOM	6089	SD	MET B 360	13.839	36.869	60.559	1.00	20.37	S
ATOM	6090	CE	MET B 360	15.479	37.155	60.204	1.00	23.09	C
ATOM	6094	C	MET B 360	14.739	36.642	64.966	1.00	20.38	C
ATOM	6095	O	MET B 360	15.699	35.880	64.761	1.00	20.33	O
ATOM	6096	N	ARG B 361	14.547	37.234	66.137	1.00	20.55	N
ATOM	6098	CA	ARG B 361	15.459	36.982	67.218	1.00	20.88	C
ATOM	6100	CB	ARG B 361	15.309	38.010	68.309	1.00	20.98	C
ATOM	6103	CG	ARG B 361	16.316	37.831	69.407	1.00	21.67	C
ATOM	6106	CD	ARG B 361	16.153	38.821	70.511	1.00	23.20	C
ATOM	6109	NE	ARG B 361	16.708	38.365	71.792	1.00	24.55	N
ATOM	6111	CZ	ARG B 361	16.083	37.582	72.684	1.00	24.23	C
ATOM	6112	NH1	ARG B 361	14.855	37.098	72.477	1.00	22.76	N
ATOM	6115	NH2	ARG B 361	16.720	37.283	73.805	1.00	25.68	N
ATOM	6118	C	ARG B 361	15.236	35.595	67.782	1.00	21.45	C
ATOM	6119	O	ARG B 361	16.172	34.957	68.220	1.00	21.22	O
ATOM	6120	N	ARG B 362	14.004	35.111	67.780	1.00	22.13	N
ATOM	6122	CA	ARG B 362	13.752	33.788	68.325	1.00	22.86	C
ATOM	6124	CB	ARG B 362	12.261	33.511	68.464	1.00	23.28	C
ATOM	6127	CG	ARG B 362	11.541	34.326	69.483	1.00	24.48	C
ATOM	6130	CD	ARG B 362	10.037	34.187	69.364	1.00	26.98	C
ATOM	6133	NE	ARG B 362	9.338	35.435	69.665	1.00	28.73	N
ATOM	6135	CZ	ARG B 362	8.333	35.946	68.954	1.00	30.48	C
ATOM	6136	NH1	ARG B 362	7.875	35.341	67.860	1.00	29.56	N
ATOM	6139	NH2	ARG B 362	7.780	37.091	69.350	1.00	32.91	N
ATOM	6142	C	ARG B 362	14.368	32.709	67.446	1.00	22.90	C
ATOM	6143	O	ARG B 362	14.557	31.585	67.890	1.00	23.17	O
ATOM	6144	N	LEU B 363	14.656	33.032	66.195	1.00	23.09	N
ATOM	6146	CA	LEU B 363	15.352	32.090	65.320	1.00	23.10	C
ATOM	6148	CB	LEU B 363	15.051	32.383	63.856	1.00	23.37	C
ATOM	6151	CG	LEU B 363	13.746	31.828	63.325	1.00	24.43	C
ATOM	6153	CD1	LEU B 363	13.567	32.406	61.943	1.00	25.89	C
ATOM	6157	CD2	LEU B 363	13.789	30.290	63.294	1.00	25.28	C
ATOM	6161	C	LEU B 363	16.855	32.080	65.512	1.00	22.55	C
ATOM	6162	O	LEU B 363	17.484	31.128	65.129	1.00	22.71	O
ATOM	6163	N	GLY B 364	17.424	33.156	66.043	1.00	22.17	N
ATOM	6165	CA	GLY B 364	18.838	33.217	66.362	1.00	21.90	C
ATOM	6168	C	GLY B 364	19.769	32.980	65.197	1.00	21.74	C
ATOM	6169	O	GLY B 364	20.661	32.123	65.278	1.00	20.98	O
ATOM	6170	N	LEU B 365	19.561	33.742	64.123	1.00	21.69	N
ATOM	6172	CA	LEU B 365	20.424	33.680	62.937	1.00	22.03	C

260

ATOM	6174	CB	LEU B 365	19.770	34.385	61.742	1.00	22.39	C
ATOM	6177	CG	LEU B 365	18.297	34.184	61.338	1.00	23.57	C
ATOM	6179	CD1	LEU B 365	18.132	34.588	59.929	1.00	24.90	C
ATOM	6183	CD2	LEU B 365	17.853	32.769	61.452	1.00	26.03	C
ATOM	6187	C	LEU B 365	21.827	34.294	63.161	1.00	21.97	C
ATOM	6188	O	LEU B 365	21.973	35.301	63.864	1.00	21.63	O
ATOM	6189	N	ASP B 366	22.852	33.669	62.571	1.00	21.97	N
ATOM	6191	CA	ASP B 366	24.214	34.227	62.545	1.00	21.76	C
ATOM	6193	CB	ASP B 366	25.300	33.132	62.729	1.00	21.83	C
ATOM	6196	CG	ASP B 366	25.210	31.983	61.714	1.00	22.12	C
ATOM	6197	OD1	ASP B 366	24.858	32.219	60.531	1.00	23.46	O
ATOM	6198	OD2	ASP B 366	25.492	30.794	62.008	1.00	20.18	O
ATOM	6199	C	ASP B 366	24.399	35.040	61.259	1.00	21.52	C
ATOM	6200	O	ASP B 366	23.458	35.232	60.531	1.00	21.62	O
ATOM	6201	N	ASP B 367	25.600	35.530	60.991	1.00	21.93	N
ATOM	6203	CA	ASP B 367	25.869	36.363	59.809	1.00	21.96	C
ATOM	6205	CB	ASP B 367	27.304	36.897	59.841	1.00	22.50	C
ATOM	6208	CG	ASP B 367	27.530	37.937	60.923	1.00	24.91	C
ATOM	6209	OD1	ASP B 367	26.560	38.629	61.362	1.00	26.49	O
ATOM	6210	OD2	ASP B 367	28.683	38.108	61.382	1.00	28.92	O
ATOM	6211	C	ASP B 367	25.714	35.640	58.496	1.00	20.99	C
ATOM	6212	O	ASP B 367	25.215	36.193	57.525	1.00	21.18	O
ATOM	6213	N	ALA B 368	26.218	34.423	58.459	1.00	19.97	N
ATOM	6215	CA	ALA B 368	26.045	33.556	57.318	1.00	19.75	C
ATOM	6217	CB	ALA B 368	26.727	32.212	57.606	1.00	19.33	C
ATOM	6221	C	ALA B 368	24.544	33.338	56.947	1.00	19.49	C
ATOM	6222	O	ALA B 368	24.174	33.331	55.779	1.00	19.63	O
ATOM	6223	N	GLU B 369	23.692	33.136	57.942	1.00	19.20	N
ATOM	6225	CA	GLU B 369	22.302	32.829	57.686	1.00	18.60	C
ATOM	6227	CB	GLU B 369	21.622	32.259	58.934	1.00	18.76	C
ATOM	6230	CG	GLU B 369	22.020	30.797	59.128	1.00	19.93	C
ATOM	6233	CD	GLU B 369	21.526	30.131	60.415	1.00	22.09	C
ATOM	6234	OE1	GLU B 369	21.206	28.912	60.342	1.00	22.95	O
ATOM	6235	OE2	GLU B 369	21.502	30.774	61.499	1.00	21.86	O
ATOM	6236	C	GLU B 369	21.643	34.059	57.145	1.00	17.93	C
ATOM	6237	O	GLU B 369	20.951	33.977	56.144	1.00	17.73	O
ATOM	6238	N	TYR B 370	21.922	35.202	57.750	1.00	17.57	N
ATOM	6240	CA	TYR B 370	21.345	36.470	57.298	1.00	18.20	C
ATOM	6242	CB	TYR B 370	21.750	37.623	58.220	1.00	18.25	C
ATOM	6245	CG	TYR B 370	20.713	37.978	59.225	1.00	17.86	C
ATOM	6246	CD1	TYR B 370	20.874	37.641	60.557	1.00	20.22	C
ATOM	6248	CE1	TYR B 370	19.902	37.958	61.496	1.00	21.95	C
ATOM	6250	CZ	TYR B 370	18.759	38.609	61.082	1.00	21.88	C
ATOM	6251	OH	TYR B 370	17.798	38.912	61.996	1.00	24.56	O
ATOM	6253	CE2	TYR B 370	18.592	38.960	59.766	1.00	20.01	C
ATOM	6255	CD2	TYR B 370	19.568	38.636	58.849	1.00	18.17	C
ATOM	6257	C	TYR B 370	21.783	36.826	55.894	1.00	18.62	C
ATOM	6258	O	TYR B 370	21.012	37.330	55.095	1.00	18.31	O

261

ATOM	6259	N	ALA B 371	23.059	36.586	55.625	1.00	19.41	N
ATOM	6261	CA	ALA B 371	23.651	36.869	54.332	1.00	19.77	C
ATOM	6263	CB	ALA B 371	25.101	36.520	54.355	1.00	20.11	C
ATOM	6267	C	ALA B 371	22.942	36.048	53.280	1.00	20.15	C
ATOM	6268	O	ALA B 371	22.403	36.600	52.334	1.00	20.44	O
ATOM	6269	N	LEU B 372	22.926	34.733	53.464	1.00	20.08	N
ATOM	6271	CA	LEU B 372	22.245	33.855	52.542	1.00	20.52	C
ATOM	6273	CB	LEU B 372	22.332	32.416	53.037	1.00	20.24	C
ATOM	6276	CG	LEU B 372	23.674	31.705	52.814	1.00	20.48	C
ATOM	6278	CD1	LEU B 372	23.645	30.402	53.579	1.00	22.12	C
ATOM	6282	CD2	LEU B 372	23.996	31.406	51.368	1.00	19.23	C
ATOM	6286	C	LEU B 372	20.771	34.266	52.285	1.00	21.35	C
ATOM	6287	O	LEU B 372	20.262	34.155	51.152	1.00	21.29	O
ATOM	6288	N	LEU B 373	20.091	34.757	53.322	1.00	21.78	N
ATOM	6290	CA	LEU B 373	18.669	35.090	53.218	1.00	21.88	C
ATOM	6292	CB	LEU B 373	18.099	35.318	54.605	1.00	22.34	C
ATOM	6295	CG	LEU B 373	16.631	35.052	54.870	1.00	24.27	C
ATOM	6297	CD1	LEU B 373	16.240	33.634	54.489	1.00	25.08	C
ATOM	6301	CD2	LEU B 373	16.434	35.258	56.348	1.00	26.33	C
ATOM	6305	C	LEU B 373	18.492	36.348	52.400	1.00	21.53	C
ATOM	6306	O	LEU B 373	17.525	36.513	51.691	1.00	21.68	O
ATOM	6307	N	ILE B 374	19.451	37.244	52.506	1.00	21.20	N
ATOM	6309	CA	ILE B 374	19.438	38.454	51.717	1.00	21.25	C
ATOM	6311	CB	ILE B 374	20.474	39.439	52.290	1.00	21.83	C
ATOM	6313	CG1	ILE B 374	19.942	40.033	53.609	1.00	22.17	C
ATOM	6316	CD1	ILE B 374	21.057	40.530	54.545	1.00	23.01	C
ATOM	6320	CG2	ILE B 374	20.798	40.532	51.287	1.00	22.04	C
ATOM	6324	C	ILE B 374	19.701	38.147	50.244	1.00	20.32	C
ATOM	6325	O	ILE B 374	19.026	38.676	49.384	1.00	20.43	O
ATOM	6326	N	ALA B 375	20.668	37.287	49.962	1.00	19.75	N
ATOM	6328	CA	ALA B 375	20.935	36.828	48.599	1.00	19.72	C
ATOM	6330	CB	ALA B 375	22.103	35.907	48.605	1.00	19.65	C
ATOM	6334	C	ALA B 375	19.717	36.114	47.975	1.00	20.06	C
ATOM	6335	O	ALA B 375	19.323	36.387	46.843	1.00	19.99	O
ATOM	6336	N	ILE B 376	19.106	35.208	48.731	1.00	20.10	N
ATOM	6338	CA	ILE B 376	17.867	34.578	48.295	1.00	19.73	C
ATOM	6340	CB	ILE B 376	17.372	33.606	49.367	1.00	19.55	C
ATOM	6342	CG1	ILE B 376	18.335	32.421	49.481	1.00	20.36	C
ATOM	6345	CD1	ILE B 376	18.102	31.493	50.697	1.00	20.84	C
ATOM	6349	CG2	ILE B 376	15.972	33.126	49.009	1.00	18.87	C
ATOM	6353	C	ILE B 376	16.794	35.625	48.008	1.00	19.34	C
ATOM	6354	O	ILE B 376	16.097	35.560	47.002	1.00	19.00	O
ATOM	6355	N	ASN B 377	16.669	36.585	48.911	1.00	19.36	N
ATOM	6357	CA	ASN B 377	15.673	37.626	48.774	1.00	19.72	C
ATOM	6359	CB	ASN B 377	15.687	38.548	49.985	1.00	19.90	C
ATOM	6362	CG	ASN B 377	14.531	39.515	49.975	1.00	20.18	C
ATOM	6363	OD1	ASN B 377	14.601	40.538	49.327	1.00	21.54	O
ATOM	6364	ND2	ASN B 377	13.454	39.185	50.682	1.00	19.64	N

262

ATOM	6367	C	ASN B 377	15.876	38.451	47.501	1.00	19.83	C
ATOM	6368	O	ASN B 377	14.899	38.825	46.841	1.00	19.63	O
ATOM	6369	N	ILE B 378	17.133	38.721	47.138	1.00	19.53	N
ATOM	6371	CA	ILE B 378	17.402	39.535	45.947	1.00	19.39	C
ATOM	6373	CB	ILE B 378	18.892	39.895	45.864	1.00	19.13	C
ATOM	6375	CG1	ILE B 378	19.253	40.988	46.873	1.00	18.64	C
ATOM	6378	CD1	ILE B 378	20.756	41.087	47.216	1.00	18.30	C
ATOM	6382	CG2	ILE B 378	19.211	40.382	44.502	1.00	20.08	C
ATOM	6386	C	ILE B 378	16.946	38.761	44.702	1.00	19.44	C
ATOM	6387	O	ILE B 378	16.234	39.281	43.843	1.00	19.04	O
ATOM	6388	N	PHE B 379	17.362	37.500	44.636	1.00	20.13	N
ATOM	6390	CA	PHE B 379	17.057	36.605	43.510	1.00	20.55	C
ATOM	6392	CB	PHE B 379	18.160	35.555	43.372	1.00	19.19	C
ATOM	6395	CG	PHE B 379	19.480	36.135	43.009	1.00	18.93	C
ATOM	6396	CD1	PHE B 379	20.620	35.781	43.693	1.00	19.79	C
ATOM	6398	CE1	PHE B 379	21.850	36.338	43.339	1.00	19.77	C
ATOM	6400	CZ	PHE B 379	21.926	37.253	42.267	1.00	18.12	C
ATOM	6402	CE2	PHE B 379	20.803	37.598	41.595	1.00	16.98	C
ATOM	6404	CD2	PHE B 379	19.593	37.055	41.963	1.00	19.16	C
ATOM	6406	C	PHE B 379	15.633	35.985	43.578	1.00	21.45	C
ATOM	6407	O	PHE B 379	15.442	34.813	43.424	1.00	21.76	O
ATOM	6408	N	SER B 380	14.638	36.820	43.771	1.00	22.84	N
ATOM	6410	CA	SER B 380	13.261	36.399	43.772	1.00	23.88	C
ATOM	6412	CB	SER B 380	12.444	37.291	44.720	1.00	23.56	C
ATOM	6415	OG	SER B 380	12.812	37.045	46.042	1.00	23.12	O
ATOM	6417	C	SER B 380	12.754	36.575	42.363	1.00	24.73	C
ATOM	6418	O	SER B 380	12.582	37.697	41.901	1.00	25.21	O
ATOM	6419	N	ALA B 381	12.464	35.478	41.684	1.00	26.26	N
ATOM	6421	CA	ALA B 381	12.124	35.551	40.246	1.00	26.69	C
ATOM	6423	CB	ALA B 381	12.230	34.178	39.572	1.00	26.50	C
ATOM	6427	C	ALA B 381	10.758	36.168	39.990	1.00	26.86	C
ATOM	6428	O	ALA B 381	10.514	36.644	38.869	1.00	27.16	O
ATOM	6429	N	ASP B 382	9.898	36.202	41.019	1.00	26.82	N
ATOM	6431	CA	ASP B 382	8.498	36.644	40.851	1.00	26.90	C
ATOM	6433	CB	ASP B 382	7.628	35.804	41.720	1.00	27.49	C
ATOM	6436	CG	ASP B 382	7.814	36.137	43.155	1.00	30.39	C
ATOM	6437	OD1	ASP B 382	8.963	36.427	43.548	1.00	32.42	O
ATOM	6438	OD2	ASP B 382	6.874	36.168	43.958	1.00	35.98	O
ATOM	6439	C	ASP B 382	8.214	38.092	41.223	1.00	26.15	C
ATOM	6440	O	ASP B 382	7.088	38.453	41.531	1.00	25.45	O
ATOM	6441	N	ARG B 383	9.244	38.923	41.215	1.00	25.85	N
ATOM	6443	CA	ARG B 383	9.036	40.342	41.392	1.00	25.29	C
ATOM	6445	CB	ARG B 383	10.356	41.064	41.574	1.00	25.32	C
ATOM	6448	CG	ARG B 383	11.181	40.580	42.713	1.00	24.29	C
ATOM	6451	CD	ARG B 383	10.514	40.697	44.041	1.00	23.33	C
ATOM	6454	NE	ARG B 383	11.504	40.573	45.118	1.00	22.46	N
ATOM	6456	CZ	ARG B 383	11.225	40.635	46.406	1.00	20.26	C
ATOM	6457	NH1	ARG B 383	9.988	40.849	46.836	1.00	18.05	N

263

ATOM	6460	NH2 ARG B 383	12.198	40.476	47.272	1.00	22.17	N
ATOM	6463	C ARG B 383	8.349	40.918	40.181	1.00	24.76	C
ATOM	6464	O ARG B 383	8.384	40.356	39.115	1.00	25.12	O
ATOM	6465	N PRO B 384	7.704	42.048	40.343	1.00	24.53	N
ATOM	6466	CA PRO B 384	7.124	42.734	39.196	1.00	24.04	C
ATOM	6468	CB PRO B 384	6.475	43.975	39.831	1.00	24.07	C
ATOM	6471	CG PRO B 384	6.155	43.540	41.218	1.00	24.47	C
ATOM	6474	CD PRO B 384	7.386	42.734	41.609	1.00	24.83	C
ATOM	6477	C PRO B 384	8.165	43.135	38.164	1.00	23.45	C
ATOM	6478	O PRO B 384	9.263	43.545	38.519	1.00	23.34	O
ATOM	6479	N ASN B 385	7.769	43.018	36.902	1.00	23.00	N
ATOM	6481	CA ASN B 385	8.504	43.474	35.720	1.00	22.84	C
ATOM	6483	CB ASN B 385	8.692	45.002	35.670	1.00	23.07	C
ATOM	6486	CG ASN B 385	7.495	45.783	36.186	1.00	23.82	C
ATOM	6487	OD1 ASN B 385	7.558	46.358	37.253	1.00	27.50	O
ATOM	6488	ND2 ASN B 385	6.425	45.831	35.424	1.00	24.98	N
ATOM	6491	C ASN B 385	9.842	42.767	35.469	1.00	22.54	C
ATOM	6492	O ASN B 385	10.709	43.305	34.761	1.00	22.77	O
ATOM	6493	N VAL B 386	10.018	41.560	36.003	1.00	21.82	N
ATOM	6495	CA VAL B 386	11.217	40.796	35.662	1.00	21.30	C
ATOM	6497	CB VAL B 386	11.578	39.773	36.744	1.00	21.47	C
ATOM	6499	CG1 VAL B 386	12.626	38.766	36.233	1.00	20.95	C
ATOM	6503	CG2 VAL B 386	12.092	40.509	37.997	1.00	21.14	C
ATOM	6507	C VAL B 386	10.979	40.156	34.287	1.00	20.86	C
ATOM	6508	O VAL B 386	9.952	39.549	34.038	1.00	21.19	O
ATOM	6509	N GLN B 387	11.918	40.338	33.381	1.00	20.10	N
ATOM	6511	CA GLN B 387	11.739	39.932	32.010	1.00	19.47	C
ATOM	6513	CB GLN B 387	12.281	41.018	31.111	1.00	19.47	C
ATOM	6516	CG GLN B 387	11.517	42.299	31.223	1.00	19.97	C
ATOM	6519	CD GLN B 387	12.162	43.357	30.380	1.00	21.09	C
ATOM	6520	OE1 GLN B 387	12.343	43.165	29.181	1.00	22.44	O
ATOM	6521	NE2 GLN B 387	12.537	44.467	30.995	1.00	22.01	N
ATOM	6524	C GLN B 387	12.436	38.613	31.725	1.00	18.93	C
ATOM	6525	O GLN B 387	12.212	38.015	30.699	1.00	19.67	O
ATOM	6526	N GLU B 388	13.279	38.165	32.633	1.00	18.08	N
ATOM	6528	CA GLU B 388	13.932	36.895	32.503	1.00	17.71	C
ATOM	6530	CB GLU B 388	15.354	37.131	32.026	1.00	17.81	C
ATOM	6533	CG GLU B 388	15.468	37.453	30.550	1.00	17.82	C
ATOM	6536	CD GLU B 388	16.918	37.440	30.101	1.00	18.15	C
ATOM	6537	OE1 GLU B 388	17.571	38.493	30.302	1.00	17.11	O
ATOM	6538	OE2 GLU B 388	17.405	36.380	29.585	1.00	15.67	O
ATOM	6539	C GLU B 388	13.931	36.230	33.876	1.00	17.82	C
ATOM	6540	O GLU B 388	14.963	36.087	34.494	1.00	17.76	O
ATOM	6541	N PRO B 389	12.768	35.841	34.374	1.00	18.13	N
ATOM	6542	CA PRO B 389	12.679	35.301	35.720	1.00	18.15	C
ATOM	6544	CB PRO B 389	11.201	35.054	35.919	1.00	17.76	C
ATOM	6547	CG PRO B 389	10.546	35.280	34.664	1.00	17.88	C
ATOM	6550	CD PRO B 389	11.463	35.882	33.704	1.00	18.53	C

264

ATOM	6553	C	PRO B 389	13.468	34.024	35.840	1.00	19.05	C
ATOM	6554	O	PRO B 389	14.147	33.863	36.848	1.00	19.55	O
ATOM	6555	N	GLY B 390	13.399	33.155	34.835	1.00	19.58	N
ATOM	6557	CA	GLY B 390	14.282	32.013	34.722	1.00	19.86	C
ATOM	6560	C	GLY B 390	15.729	32.242	35.110	1.00	20.83	C
ATOM	6561	O	GLY B 390	16.320	31.440	35.846	1.00	22.05	O
ATOM	6562	N	ARG B 391	16.339	33.316	34.636	1.00	21.12	N
ATOM	6564	CA	ARG B 391	17.744	33.569	34.983	1.00	21.55	C
ATOM	6566	CB	ARG B 391	18.313	34.704	34.121	1.00	21.64	C
ATOM	6569	CG	ARG B 391	18.149	34.521	32.611	1.00	22.19	C
ATOM	6572	CD	ARG B 391	19.056	33.468	32.031	1.00	22.52	C
ATOM	6575	NE	ARG B 391	20.455	33.858	32.107	1.00	23.38	N
ATOM	6577	CZ	ARG B 391	21.458	33.104	31.677	1.00	23.56	C
ATOM	6578	NH1	ARG B 391	21.215	31.909	31.160	1.00	24.93	N
ATOM	6581	NH2	ARG B 391	22.705	33.537	31.757	1.00	22.82	N
ATOM	6584	C	ARG B 391	17.912	33.933	36.469	1.00	22.06	C
ATOM	6585	O	ARG B 391	18.965	33.784	37.055	1.00	22.01	O
ATOM	6586	N	VAL B 392	16.865	34.470	37.060	1.00	23.06	N
ATOM	6588	CA	VAL B 392	16.912	34.882	38.449	1.00	23.96	C
ATOM	6590	CB	VAL B 392	15.765	35.907	38.779	1.00	23.94	C
ATOM	6592	CG1	VAL B 392	15.793	36.298	40.243	1.00	24.94	C
ATOM	6596	CG2	VAL B 392	15.894	37.149	37.933	1.00	22.66	C
ATOM	6600	C	VAL B 392	16.838	33.614	39.309	1.00	24.69	C
ATOM	6601	O	VAL B 392	17.721	33.368	40.123	1.00	23.97	O
ATOM	6602	N	GLU B 393	15.803	32.798	39.092	1.00	25.88	N
ATOM	6604	CA	GLU B 393	15.709	31.469	39.730	1.00	27.13	C
ATOM	6606	CB	GLU B 393	14.635	30.644	39.068	1.00	27.48	C
ATOM	6609	CG	GLU B 393	14.022	29.585	39.964	1.00	31.61	C
ATOM	6612	CD	GLU B 393	12.669	29.130	39.408	1.00	38.64	C
ATOM	6613	OE1	GLU B 393	11.641	29.489	40.026	1.00	42.36	O
ATOM	6614	OE2	GLU B 393	12.622	28.452	38.331	1.00	42.52	O
ATOM	6615	C	GLU B 393	17.008	30.636	39.738	1.00	26.81	C
ATOM	6616	O	GLU B 393	17.300	29.955	40.715	1.00	27.38	O
ATOM	6617	N	ALA B 394	17.769	30.686	38.652	1.00	26.35	N
ATOM	6619	CA	ALA B 394	18.997	29.909	38.526	1.00	25.69	C
ATOM	6621	CB	ALA B 394	19.486	29.946	37.113	1.00	25.51	C
ATOM	6625	C	ALA B 394	20.073	30.455	39.462	1.00	25.37	C
ATOM	6626	O	ALA B 394	20.877	29.703	40.026	1.00	25.18	O
ATOM	6627	N	LEU B 395	20.112	31.768	39.607	1.00	24.61	N
ATOM	6629	CA	LEU B 395	20.986	32.361	40.601	1.00	24.14	C
ATOM	6631	CB	LEU B 395	21.169	33.848	40.305	1.00	23.88	C
ATOM	6634	CG	LEU B 395	21.908	34.145	39.009	1.00	24.05	C
ATOM	6636	CD1	LEU B 395	21.928	35.653	38.796	1.00	25.55	C
ATOM	6640	CD2	LEU B 395	23.326	33.613	39.026	1.00	23.40	C
ATOM	6644	C	LEU B 395	20.493	32.130	42.061	1.00	23.52	C
ATOM	6645	O	LEU B 395	21.317	32.002	42.968	1.00	23.09	O
ATOM	6646	N	GLN B 396	19.180	32.047	42.283	1.00	22.77	N
ATOM	6648	CA	GLN B 396	18.659	31.911	43.649	1.00	22.84	C

265

ATOM	6650	CB	GLN B 396	17.137	32.134	43.685	1.00	22.46	C
ATOM	6653	CG	GLN B 396	16.597	32.351	45.121	1.00	21.86	C
ATOM	6656	CD	GLN B 396	15.093	32.230	45.224	1.00	22.07	C
ATOM	6657	OE1	GLN B 396	14.539	31.210	44.849	1.00	25.24	O
ATOM	6658	NE2	GLN B 396	14.430	33.254	45.748	1.00	19.98	N
ATOM	6661	C	GLN B 396	18.961	30.539	44.271	1.00	23.28	C
ATOM	6662	O	GLN B 396	19.360	30.409	45.433	1.00	22.64	O
ATOM	6663	N	GLN B 397	18.752	29.511	43.465	1.00	24.24	N
ATOM	6665	CA	GLN B 397	18.766	28.124	43.918	1.00	24.67	C
ATOM	6667	CB	GLN B 397	18.568	27.206	42.715	1.00	25.50	C
ATOM	6670	CG	GLN B 397	18.448	25.747	43.063	1.00	28.77	C
ATOM	6673	CD	GLN B 397	17.262	25.164	42.382	1.00	33.24	C
ATOM	6674	OE1	GLN B 397	17.224	25.139	41.143	1.00	36.36	O
ATOM	6675	NE2	GLN B 397	16.238	24.763	43.166	1.00	36.14	N
ATOM	6678	C	GLN B 397	20.023	27.708	44.690	1.00	23.47	C
ATOM	6679	O	GLN B 397	19.885	27.115	45.740	1.00	23.28	O
ATOM	6680	N	PRO B 398	21.232	27.960	44.178	1.00	22.21	N
ATOM	6681	CA	PRO B 398	22.429	27.606	44.954	1.00	22.07	C
ATOM	6683	CB	PRO B 398	23.595	28.111	44.067	1.00	21.81	C
ATOM	6686	CG	PRO B 398	23.038	28.253	42.719	1.00	20.81	C
ATOM	6689	CD	PRO B 398	21.588	28.535	42.866	1.00	21.52	C
ATOM	6692	C	PRO B 398	22.450	28.206	46.397	1.00	21.66	C
ATOM	6693	O	PRO B 398	22.887	27.547	47.341	1.00	21.24	O
ATOM	6694	N	TYR B 399	21.944	29.421	46.554	1.00	21.10	N
ATOM	6696	CA	TYR B 399	21.896	30.073	47.868	1.00	20.92	C
ATOM	6698	CB	TYR B 399	21.568	31.574	47.702	1.00	21.19	C
ATOM	6701	CG	TYR B 399	22.698	32.361	47.027	1.00	20.24	C
ATOM	6702	CD1	TYR B 399	22.592	32.808	45.725	1.00	18.82	C
ATOM	6704	CE1	TYR B 399	23.608	33.500	45.132	1.00	20.34	C
ATOM	6706	CZ	TYR B 399	24.768	33.746	45.842	1.00	20.91	C
ATOM	6707	OH	TYR B 399	25.843	34.443	45.306	1.00	21.63	O
ATOM	6709	CE2	TYR B 399	24.886	33.298	47.127	1.00	21.36	C
ATOM	6711	CD2	TYR B 399	23.863	32.624	47.710	1.00	20.46	C
ATOM	6713	C	TYR B 399	20.898	29.419	48.815	1.00	20.41	C
ATOM	6714	O	TYR B 399	21.106	29.374	50.016	1.00	20.38	O
ATOM	6715	N	VAL B 400	19.798	28.940	48.258	1.00	20.03	N
ATOM	6717	CA	VAL B 400	18.800	28.185	49.011	1.00	19.24	C
ATOM	6719	CB	VAL B 400	17.455	28.000	48.185	1.00	18.97	C
ATOM	6721	CG1	VAL B 400	16.494	27.023	48.871	1.00	17.82	C
ATOM	6725	CG2	VAL B 400	16.786	29.357	47.918	1.00	17.65	C
ATOM	6729	C	VAL B 400	19.392	26.843	49.403	1.00	19.00	C
ATOM	6730	O	VAL B 400	19.239	26.442	50.526	1.00	19.25	O
ATOM	6731	N	GLU B 401	20.066	26.165	48.482	1.00	18.97	N
ATOM	6733	CA	GLU B 401	20.715	24.902	48.779	1.00	19.97	C
ATOM	6735	CB	GLU B 401	21.390	24.353	47.523	1.00	20.59	C
ATOM	6738	CG	GLU B 401	20.569	23.320	46.786	1.00	25.37	C
ATOM	6741	CD	GLU B 401	20.983	23.073	45.329	1.00	32.52	C
ATOM	6742	OE1	GLU B 401	20.167	22.424	44.643	1.00	37.24	O

266

ATOM	6743	OE2	GLU B 401	22.083	23.500	44.846	1.00	37.72	O
ATOM	6744	C	GLU B 401	21.771	25.081	49.890	1.00	19.60	C
ATOM	6745	O	GLU B 401	21.978	24.222	50.745	1.00	18.58	O
ATOM	6746	N	ALA B 402	22.438	26.227	49.833	1.00	19.35	N
ATOM	6748	CA	ALA B 402	23.497	26.565	50.741	1.00	18.74	C
ATOM	6750	CB	ALA B 402	24.162	27.859	50.273	1.00	19.13	C
ATOM	6754	C	ALA B 402	22.940	26.729	52.143	1.00	18.23	C
ATOM	6755	O	ALA B 402	23.481	26.159	53.102	1.00	17.98	O
ATOM	6756	N	LEU B 403	21.877	27.522	52.259	1.00	17.57	N
ATOM	6758	CA	LEU B 403	21.169	27.688	53.537	1.00	17.83	C
ATOM	6760	CB	LEU B 403	20.047	28.720	53.394	1.00	17.84	C
ATOM	6763	CG	LEU B 403	19.304	29.202	54.639	1.00	16.31	C
ATOM	6765	CD1	LEU B 403	20.264	29.765	55.627	1.00	15.60	C
ATOM	6769	CD2	LEU B 403	18.281	30.234	54.261	1.00	15.33	C
ATOM	6773	C	LEU B 403	20.608	26.361	54.101	1.00	18.18	C
ATOM	6774	O	LEU B 403	20.771	26.063	55.277	1.00	16.92	O
ATOM	6775	N	LEU B 404	19.958	25.561	53.253	1.00	19.14	N
ATOM	6777	CA	LEU B 404	19.502	24.242	53.668	1.00	19.76	C
ATOM	6779	CB	LEU B 404	18.981	23.431	52.490	1.00	19.91	C
ATOM	6782	CG	LEU B 404	18.399	22.043	52.790	1.00	21.43	C
ATOM	6784	CD1	LEU B 404	17.465	22.023	53.991	1.00	22.46	C
ATOM	6788	CD2	LEU B 404	17.674	21.505	51.553	1.00	21.66	C
ATOM	6792	C	LEU B 404	20.645	23.512	54.360	1.00	19.98	C
ATOM	6793	O	LEU B 404	20.527	23.151	55.518	1.00	20.33	O
ATOM	6794	N	SER B 405	21.765	23.368	53.666	1.00	20.53	N
ATOM	6796	CA	SER B 405	22.908	22.589	54.138	1.00	21.05	C
ATOM	6798	CB	SER B 405	23.900	22.377	52.998	1.00	21.36	C
ATOM	6801	OG	SER B 405	23.235	21.895	51.833	1.00	23.07	O
ATOM	6803	C	SER B 405	23.608	23.237	55.335	1.00	21.21	C
ATOM	6804	O	SER B 405	24.063	22.536	56.255	1.00	20.72	O
ATOM	6805	N	TYR B 406	23.660	24.572	55.338	1.00	21.40	N
ATOM	6807	CA	TYR B 406	24.165	25.309	56.493	1.00	21.50	C
ATOM	6809	CB	TYR B 406	24.222	26.811	56.211	1.00	21.34	C
ATOM	6812	CG	TYR B 406	24.870	27.554	57.345	1.00	21.01	C
ATOM	6813	CD1	TYR B 406	26.241	27.819	57.332	1.00	20.35	C
ATOM	6815	CE1	TYR B 406	26.859	28.471	58.379	1.00	19.54	C
ATOM	6817	CZ	TYR B 406	26.130	28.840	59.484	1.00	20.58	C
ATOM	6818	OH	TYR B 406	26.751	29.480	60.525	1.00	17.71	O
ATOM	6820	CE2	TYR B 406	24.771	28.572	59.543	1.00	21.80	C
ATOM	6822	CD2	TYR B 406	24.141	27.937	58.456	1.00	21.03	C
ATOM	6824	C	TYR B 406	23.358	25.038	57.793	1.00	21.99	C
ATOM	6825	O	TYR B 406	23.952	24.666	58.803	1.00	22.50	O
ATOM	6826	N	THR B 407	22.033	25.222	57.753	1.00	22.60	N
ATOM	6828	CA	THR B 407	21.106	24.979	58.893	1.00	23.33	C
ATOM	6830	CB	THR B 407	19.612	25.355	58.532	1.00	23.21	C
ATOM	6832	OG1	THR B 407	19.223	24.720	57.311	1.00	21.25	O
ATOM	6834	CG2	THR B 407	19.423	26.847	58.264	1.00	22.50	C
ATOM	6838	C	THR B 407	21.088	23.534	59.395	1.00	24.32	C

267

ATOM	6839	O	THR B 407	20.968	23.288	60.576	1.00	23.72	O
ATOM	6840	N	ARG B 408	21.135	22.598	58.464	1.00	25.82	N
ATOM	6842	CA	ARG B 408	21.304	21.195	58.769	1.00	27.43	C
ATOM	6844	CB	ARG B 408	21.590	20.438	57.472	1.00	28.12	C
ATOM	6847	CG	ARG B 408	20.474	19.593	56.985	1.00	31.35	C
ATOM	6850	CD	ARG B 408	20.854	18.649	55.855	1.00	36.14	C
ATOM	6853	NE	ARG B 408	19.859	17.586	55.832	1.00	40.97	N
ATOM	6855	CZ	ARG B 408	18.659	17.664	55.248	1.00	44.02	C
ATOM	6856	NH1	ARG B 408	18.292	18.752	54.556	1.00	43.40	N
ATOM	6859	NH2	ARG B 408	17.831	16.616	55.341	1.00	45.66	N
ATOM	6862	C	ARG B 408	22.499	20.970	59.680	1.00	27.90	C
ATOM	6863	O	ARG B 408	22.448	20.213	60.656	1.00	27.33	O
ATOM	6864	N	ILE B 409	23.600	21.602	59.303	1.00	28.65	N
ATOM	6866	CA	ILE B 409	24.874	21.315	59.925	1.00	29.43	C
ATOM	6868	CB	ILE B 409	26.031	21.700	58.981	1.00	29.63	C
ATOM	6870	CG1	ILE B 409	26.238	20.585	57.942	1.00	30.42	C
ATOM	6873	CD1	ILE B 409	27.234	20.919	56.829	1.00	31.02	C
ATOM	6877	CG2	ILE B 409	27.305	21.931	59.766	1.00	29.94	C
ATOM	6881	C	ILE B 409	24.974	21.995	61.286	1.00	29.71	C
ATOM	6882	O	ILE B 409	25.365	21.354	62.257	1.00	29.24	O
ATOM	6883	N	LYS B 410	24.610	23.279	61.339	1.00	30.37	N
ATOM	6885	CA	LYS B 410	24.637	24.068	62.575	1.00	30.83	C
ATOM	6887	CB	LYS B 410	24.243	25.526	62.291	1.00	31.05	C
ATOM	6890	CG	LYS B 410	24.126	26.442	63.533	1.00	31.09	C
ATOM	6893	CD	LYS B 410	23.712	27.862	63.142	1.00	31.05	C
ATOM	6896	CE	LYS B 410	23.132	28.662	64.308	1.00	30.78	C
ATOM	6899	NZ	LYS B 410	23.280	30.140	64.067	1.00	30.57	N
ATOM	6903	C	LYS B 410	23.699	23.487	63.624	1.00	31.13	C
ATOM	6904	O	LYS B 410	24.025	23.455	64.812	1.00	31.02	O
ATOM	6905	N	ARG B 411	22.530	23.037	63.175	1.00	31.60	N
ATOM	6907	CA	ARG B 411	21.484	22.548	64.071	1.00	32.04	C
ATOM	6909	CB	ARG B 411	20.398	23.626	64.262	1.00	32.46	C
ATOM	6912	CG	ARG B 411	20.909	24.977	64.766	1.00	35.17	C
ATOM	6915	CD	ARG B 411	21.177	25.100	66.289	1.00	39.41	C
ATOM	6918	NE	ARG B 411	20.672	26.400	66.733	1.00	44.08	N
ATOM	6920	CZ	ARG B 411	19.422	26.642	67.180	1.00	47.09	C
ATOM	6921	NH1	ARG B 411	18.531	25.648	67.319	1.00	47.14	N
ATOM	6924	NH2	ARG B 411	19.065	27.896	67.511	1.00	47.17	N
ATOM	6927	C	ARG B 411	20.855	21.246	63.556	1.00	31.31	C
ATOM	6928	O	ARG B 411	19.684	21.237	63.219	1.00	30.81	O
ATOM	6929	N	PRO B 412	21.608	20.143	63.547	1.00	31.11	N
ATOM	6930	CA	PRO B 412	21.108	18.848	63.040	1.00	31.04	C
ATOM	6932	CB	PRO B 412	22.198	17.853	63.471	1.00	31.06	C
ATOM	6935	CG	PRO B 412	23.020	18.585	64.489	1.00	31.09	C
ATOM	6938	CD	PRO B 412	22.979	20.022	64.073	1.00	31.04	C
ATOM	6941	C	PRO B 412	19.764	18.424	63.622	1.00	30.98	C
ATOM	6942	O	PRO B 412	18.990	17.774	62.924	1.00	30.55	O
ATOM	6943	N	GLN B 413	19.487	18.838	64.857	1.00	31.37	N

268

ATOM	6945	CA	GLN B 413	18.318	18.385	65.608	1.00	31.76	C
ATOM	6947	CB	GLN B 413	18.699	18.182	67.085	1.00	31.90	C
ATOM	6950	CG	GLN B 413	19.976	17.345	67.302	1.00	32.92	C
ATOM	6953	CD	GLN B 413	19.728	15.837	67.190	1.00	34.63	C
ATOM	6954	OE1	GLN B 413	19.739	15.251	66.089	1.00	33.84	O
ATOM	6955	NE2	GLN B 413	19.501	15.205	68.339	1.00	36.01	N
ATOM	6958	C	GLN B 413	17.098	19.310	65.515	1.00	31.52	C
ATOM	6959	O	GLN B 413	16.098	19.054	66.177	1.00	31.68	O
ATOM	6960	N	ASP B 414	17.171	20.364	64.706	1.00	31.28	N
ATOM	6962	CA	ASP B 414	16.031	21.264	64.510	1.00	31.37	C
ATOM	6964	CB	ASP B 414	16.344	22.671	65.012	1.00	31.36	C
ATOM	6967	CG	ASP B 414	15.105	23.531	65.122	1.00	33.05	C
ATOM	6968	OD1	ASP B 414	14.044	23.162	64.562	1.00	35.59	O
ATOM	6969	OD2	ASP B 414	15.095	24.602	65.757	1.00	35.48	O
ATOM	6970	C	ASP B 414	15.601	21.326	63.049	1.00	31.09	C
ATOM	6971	O	ASP B 414	15.951	22.256	62.313	1.00	31.09	O
ATOM	6972	N	GLN B 415	14.804	20.342	62.651	1.00	30.85	N
ATOM	6974	CA	GLN B 415	14.387	20.190	61.256	1.00	30.59	C
ATOM	6976	CB	GLN B 415	13.764	18.790	61.032	1.00	31.09	C
ATOM	6979	CG	GLN B 415	14.780	17.634	60.807	1.00	33.66	C
ATOM	6982	CD	GLN B 415	15.899	17.986	59.796	1.00	38.47	C
ATOM	6983	OE1	GLN B 415	17.104	17.943	60.134	1.00	41.48	O
ATOM	6984	NE2	GLN B 415	15.504	18.353	58.566	1.00	40.87	N
ATOM	6987	C	GLN B 415	13.440	21.313	60.775	1.00	29.62	C
ATOM	6988	O	GLN B 415	13.273	21.495	59.551	1.00	29.23	O
ATOM	6989	N	LEU B 416	12.854	22.063	61.724	1.00	28.51	N
ATOM	6991	CA	LEU B 416	11.926	23.172	61.412	1.00	27.87	C
ATOM	6993	CB	LEU B 416	10.832	23.271	62.475	1.00	27.63	C
ATOM	6996	CG	LEU B 416	9.753	22.197	62.482	1.00	27.17	C
ATOM	6998	CD1	LEU B 416	8.690	22.614	63.488	1.00	26.60	C
ATOM	7002	CD2	LEU B 416	9.154	21.951	61.090	1.00	26.52	C
ATOM	7006	C	LEU B 416	12.557	24.560	61.301	1.00	27.40	C
ATOM	7007	O	LEU B 416	11.872	25.525	60.974	1.00	27.02	O
ATOM	7008	N	ARG B 417	13.847	24.678	61.574	1.00	27.00	N
ATOM	7010	CA	ARG B 417	14.467	26.003	61.585	1.00	26.48	C
ATOM	7012	CB	ARG B 417	15.822	25.986	62.321	1.00	26.93	C
ATOM	7015	CG	ARG B 417	16.894	26.860	61.699	1.00	27.72	C
ATOM	7018	CD	ARG B 417	18.315	26.647	62.233	1.00	28.01	C
ATOM	7021	NE	ARG B 417	18.987	27.942	62.348	1.00	26.38	N
ATOM	7023	CZ	ARG B 417	18.760	28.798	63.305	1.00	23.60	C
ATOM	7024	NH1	ARG B 417	17.913	28.490	64.272	1.00	23.64	N
ATOM	7027	NH2	ARG B 417	19.387	29.956	63.287	1.00	23.29	N
ATOM	7030	C	ARG B 417	14.591	26.515	60.159	1.00	25.26	C
ATOM	7031	O	ARG B 417	14.311	27.673	59.905	1.00	25.17	O
ATOM	7032	N	PHE B 418	14.991	25.657	59.230	1.00	23.86	N
ATOM	7034	CA	PHE B 418	15.044	26.080	57.839	1.00	23.32	C
ATOM	7036	CB	PHE B 418	15.593	24.980	56.956	1.00	23.41	C
ATOM	7039	CG	PHE B 418	15.727	25.371	55.529	1.00	24.28	C

269

ATOM	7040	CD1 PHE B 418	16.458	26.480	55.180	1.00	25.62	C
ATOM	7042	CE1 PHE B 418	16.607	26.847	53.871	1.00	28.16	C
ATOM	7044	CZ PHE B 418	16.022	26.090	52.868	1.00	29.91	C
ATOM	7046	CE2 PHE B 418	15.286	24.965	53.207	1.00	28.48	C
ATOM	7048	CD2 PHE B 418	15.137	24.618	54.538	1.00	26.82	C
ATOM	7050	C PHE B 418	13.697	26.561	57.282	1.00	23.02	C
ATOM	7051	O PHE B 418	13.657	27.627	56.697	1.00	22.33	O
ATOM	7052	N PRO B 419	12.612	25.783	57.429	1.00	22.91	N
ATOM	7053	CA PRO B 419	11.284	26.233	57.016	1.00	22.93	C
ATOM	7055	CB PRO B 419	10.349	25.107	57.508	1.00	22.95	C
ATOM	7058	CG PRO B 419	11.155	23.916	57.474	1.00	22.86	C
ATOM	7061	CD PRO B 419	12.530	24.400	57.931	1.00	23.56	C
ATOM	7064	C PRO B 419	10.900	27.544	57.635	1.00	23.02	C
ATOM	7065	O PRO B 419	10.437	28.399	56.875	1.00	22.94	O
ATOM	7066	N ARG B 420	11.114	27.717	58.942	1.00	23.41	N
ATOM	7068	CA ARG B 420	10.786	28.985	59.603	1.00	24.16	C
ATOM	7070	CB ARG B 420	11.108	28.972	61.081	1.00	24.28	C
ATOM	7073	CG ARG B 420	10.080	28.246	61.896	1.00	26.85	C
ATOM	7076	CD ARG B 420	10.218	28.401	63.384	1.00	30.77	C
ATOM	7079	NE ARG B 420	9.654	27.233	64.062	1.00	34.79	N
ATOM	7081	CZ ARG B 420	10.346	26.168	64.516	1.00	38.50	C
ATOM	7082	NH1 ARG B 420	11.681	26.086	64.397	1.00	39.26	N
ATOM	7085	NH2 ARG B 420	9.682	25.163	65.106	1.00	39.37	N
ATOM	7088	C ARG B 420	11.537	30.103	58.952	1.00	24.82	C
ATOM	7089	O ARG B 420	10.989	31.189	58.807	1.00	26.27	O
ATOM	7090	N MET B 421	12.776	29.845	58.530	1.00	24.91	N
ATOM	7092	CA MET B 421	13.553	30.868	57.843	1.00	25.26	C
ATOM	7094	CB MET B 421	14.970	30.397	57.577	1.00	25.40	C
ATOM	7097	CG MET B 421	15.826	30.434	58.849	1.00	27.21	C
ATOM	7100	SD MET B 421	17.544	30.165	58.566	1.00	27.35	S
ATOM	7101	CE MET B 421	17.757	31.547	57.546	1.00	30.33	C
ATOM	7105	C MET B 421	12.898	31.328	56.559	1.00	25.31	C
ATOM	7106	O MET B 421	12.606	32.520	56.412	1.00	24.94	O
ATOM	7107	N LEU B 422	12.655	30.387	55.642	1.00	25.81	N
ATOM	7109	CA LEU B 422	11.937	30.683	54.389	1.00	26.03	C
ATOM	7111	CB LEU B 422	11.675	29.424	53.544	1.00	25.89	C
ATOM	7114	CG LEU B 422	12.856	28.593	53.058	1.00	26.90	C
ATOM	7116	CD1 LEU B 422	12.349	27.425	52.241	1.00	28.42	C
ATOM	7120	CD2 LEU B 422	13.830	29.394	52.258	1.00	27.83	C
ATOM	7124	C LEU B 422	10.601	31.383	54.677	1.00	25.93	C
ATOM	7125	O LEU B 422	10.209	32.268	53.919	1.00	26.08	O
ATOM	7126	N MET B 423	9.915	31.017	55.766	1.00	25.24	N
ATOM	7128	CA MET B 423	8.633	31.637	56.062	1.00	25.20	C
ATOM	7130	CB MET B 423	7.953	30.976	57.263	1.00	26.12	C
ATOM	7133	CG MET B 423	7.525	29.546	57.077	1.00	29.14	C
ATOM	7136	SD MET B 423	6.110	29.354	56.027	1.00	33.88	S
ATOM	7137	CE MET B 423	5.398	27.865	56.718	1.00	31.87	C
ATOM	7141	C MET B 423	8.812	33.130	56.364	1.00	24.01	C

270

ATOM	7142	O	MET B 423	7.873	33.891	56.259	1.00	24.04	O
ATOM	7143	N	LYS B 424	9.993	33.557	56.780	1.00	22.48	N
ATOM	7145	CA	LYS B 424	10.208	34.982	56.972	1.00	21.56	C
ATOM	7147	CB	LYS B 424	11.478	35.290	57.792	1.00	21.39	C
ATOM	7150	CG	LYS B 424	11.493	34.587	59.158	1.00	22.03	C
ATOM	7153	CD	LYS B 424	10.557	35.305	60.148	1.00	25.08	C
ATOM	7156	CE	LYS B 424	10.012	34.408	61.295	1.00	25.53	C
ATOM	7159	NZ	LYS B 424	9.429	33.142	60.779	1.00	26.17	N
ATOM	7163	C	LYS B 424	10.198	35.707	55.635	1.00	20.62	C
ATOM	7164	O	LYS B 424	9.785	36.856	55.601	1.00	20.46	O
ATOM	7165	N	LEU B 425	10.606	35.069	54.533	1.00	19.60	N
ATOM	7167	CA	LEU B 425	10.422	35.708	53.223	1.00	19.55	C
ATOM	7169	CB	LEU B 425	11.035	34.913	52.090	1.00	19.54	C
ATOM	7172	CG	LEU B 425	12.505	34.601	52.232	1.00	21.54	C
ATOM	7174	CD1	LEU B 425	12.869	33.566	51.211	1.00	23.40	C
ATOM	7178	CD2	LEU B 425	13.352	35.834	52.060	1.00	22.49	C
ATOM	7182	C	LEU B 425	8.938	35.944	52.908	1.00	19.31	C
ATOM	7183	O	LEU B 425	8.581	36.844	52.167	1.00	19.19	O
ATOM	7184	N	VAL B 426	8.067	35.120	53.458	1.00	19.66	N
ATOM	7186	CA	VAL B 426	6.624	35.318	53.304	1.00	19.82	C
ATOM	7188	CB	VAL B 426	5.810	34.102	53.825	1.00	19.55	C
ATOM	7190	CG1	VAL B 426	4.326	34.417	53.825	1.00	18.92	C
ATOM	7194	CG2	VAL B 426	6.122	32.843	52.986	1.00	19.22	C
ATOM	7198	C	VAL B 426	6.207	36.568	54.050	1.00	20.19	C
ATOM	7199	O	VAL B 426	5.549	37.418	53.511	1.00	20.87	O
ATOM	7200	N	SER B 427	6.624	36.694	55.296	1.00	20.79	N
ATOM	7202	CA	SER B 427	6.278	37.863	56.087	1.00	21.20	C
ATOM	7204	CB	SER B 427	6.894	37.764	57.497	1.00	21.36	C
ATOM	7207	OG	SER B 427	6.259	36.781	58.288	1.00	22.31	O
ATOM	7209	C	SER B 427	6.790	39.129	55.428	1.00	21.16	C
ATOM	7210	O	SER B 427	6.201	40.177	55.582	1.00	20.49	O
ATOM	7211	N	LEU B 428	7.924	39.027	54.738	1.00	21.51	N
ATOM	7213	CA	LEU B 428	8.587	40.206	54.213	1.00	21.87	C
ATOM	7215	CB	LEU B 428	10.006	39.877	53.752	1.00	22.01	C
ATOM	7218	CG	LEU B 428	11.072	39.857	54.846	1.00	22.00	C
ATOM	7220	CD1	LEU B 428	12.358	39.137	54.352	1.00	22.22	C
ATOM	7224	CD2	LEU B 428	11.375	41.269	55.310	1.00	21.90	C
ATOM	7228	C	LEU B 428	7.778	40.809	53.079	1.00	22.12	C
ATOM	7229	O	LEU B 428	7.788	42.016	52.901	1.00	21.40	O
ATOM	7230	N	ARG B 429	7.072	39.969	52.330	1.00	23.03	N
ATOM	7232	CA	ARG B 429	6.227	40.446	51.244	1.00	24.02	C
ATOM	7234	CB	ARG B 429	5.613	39.303	50.412	1.00	24.16	C
ATOM	7237	CG	ARG B 429	6.557	38.518	49.526	1.00	24.59	C
ATOM	7240	CD	ARG B 429	7.456	39.354	48.604	1.00	25.32	C
ATOM	7243	NE	ARG B 429	8.494	38.543	47.975	1.00	24.69	N
ATOM	7245	CZ	ARG B 429	8.371	37.961	46.791	1.00	26.36	C
ATOM	7246	NH1	ARG B 429	7.272	38.102	46.064	1.00	26.96	N
ATOM	7249	NH2	ARG B 429	9.355	37.221	46.331	1.00	27.37	N

271

ATOM	7252	C	ARG B 429	5.106	41.270	51.814	1.00	24.59	C
ATOM	7253	O	ARG B 429	4.804	42.352	51.315	1.00	26.17	O
ATOM	7254	N	THR B 430	4.444	40.774	52.838	1.00	24.58	N
ATOM	7256	CA	THR B 430	3.337	41.547	53.388	1.00	24.82	C
ATOM	7258	CB	THR B 430	2.507	40.728	54.397	1.00	25.23	C
ATOM	7260	OG1	THR B 430	1.626	39.824	53.700	1.00	27.17	O
ATOM	7262	CG2	THR B 430	1.571	41.634	55.145	1.00	26.41	C
ATOM	7266	C	THR B 430	3.842	42.825	54.027	1.00	24.07	C
ATOM	7267	O	THR B 430	3.180	43.824	53.964	1.00	24.19	O
ATOM	7268	N	LEU B 431	5.015	42.783	54.636	1.00	23.83	N
ATOM	7270	CA	LEU B 431	5.598	43.946	55.276	1.00	23.82	C
ATOM	7272	CB	LEU B 431	6.853	43.566	56.053	1.00	24.30	C
ATOM	7275	CG	LEU B 431	6.814	43.380	57.565	1.00	25.96	C
ATOM	7277	CD1	LEU B 431	5.442	43.604	58.172	1.00	27.20	C
ATOM	7281	CD2	LEU B 431	7.349	42.013	57.897	1.00	28.21	C
ATOM	7285	C	LEU B 431	5.977	44.975	54.239	1.00	23.26	C
ATOM	7286	O	LEU B 431	5.923	46.176	54.492	1.00	22.84	O
ATOM	7287	N	SER B 432	6.373	44.498	53.069	1.00	22.92	N
ATOM	7289	CA	SER B 432	6.604	45.391	51.952	1.00	22.82	C
ATOM	7291	CB	SER B 432	7.100	44.653	50.732	1.00	22.84	C
ATOM	7294	OG	SER B 432	7.207	45.556	49.655	1.00	23.55	O
ATOM	7296	C	SER B 432	5.341	46.132	51.589	1.00	22.67	C
ATOM	7297	O	SER B 432	5.423	47.296	51.315	1.00	22.90	O
ATOM	7298	N	SER B 433	4.181	45.476	51.580	1.00	22.72	N
ATOM	7300	CA	SER B 433	2.907	46.183	51.309	1.00	23.00	C
ATOM	7302	CB	SER B 433	1.705	45.224	51.154	1.00	23.28	C
ATOM	7305	OG	SER B 433	1.809	44.429	49.973	1.00	27.58	O
ATOM	7307	C	SER B 433	2.576	47.187	52.388	1.00	21.87	C
ATOM	7308	O	SER B 433	2.144	48.289	52.103	1.00	21.06	O
ATOM	7309	N	VAL B 434	2.771	46.786	53.635	1.00	21.22	N
ATOM	7311	CA	VAL B 434	2.437	47.642	54.749	1.00	20.81	C
ATOM	7313	CB	VAL B 434	2.627	46.887	56.091	1.00	20.75	C
ATOM	7315	CG1	VAL B 434	2.403	47.788	57.295	1.00	20.51	C
ATOM	7319	CG2	VAL B 434	1.656	45.736	56.178	1.00	21.14	C
ATOM	7323	C	VAL B 434	3.277	48.928	54.648	1.00	20.36	C
ATOM	7324	O	VAL B 434	2.819	49.996	55.001	1.00	19.94	O
ATOM	7325	N	HIS B 435	4.489	48.824	54.130	1.00	20.35	N
ATOM	7327	CA	HIS B 435	5.350	49.981	53.997	1.00	20.72	C
ATOM	7329	CB	HIS B 435	6.791	49.571	53.668	1.00	20.92	C
ATOM	7332	CG	HIS B 435	7.678	50.733	53.347	1.00	21.42	C
ATOM	7333	ND1	HIS B 435	8.403	50.814	52.179	1.00	20.55	N
ATOM	7335	CE1	HIS B 435	9.084	51.948	52.173	1.00	21.02	C
ATOM	7337	NE2	HIS B 435	8.795	52.624	53.273	1.00	20.03	N
ATOM	7339	CD2	HIS B 435	7.912	51.889	54.022	1.00	20.83	C
ATOM	7341	C	HIS B 435	4.831	50.921	52.924	1.00	20.87	C
ATOM	7342	O	HIS B 435	4.832	52.144	53.085	1.00	20.81	O
ATOM	7343	N	SER B 436	4.385	50.357	51.824	1.00	21.23	N
ATOM	7345	CA	SER B 436	3.737	51.169	50.803	1.00	21.81	C

272

ATOM	7347	CB	SER B 436	3.417	50.312	49.584	1.00	21.64	C
ATOM	7350	OG	SER B 436	4.630	49.798	49.024	1.00	21.73	O
ATOM	7352	C	SER B 436	2.493	51.904	51.338	1.00	22.24	C
ATOM	7353	O	SER B 436	2.269	53.043	50.995	1.00	22.27	O
ATOM	7354	N	GLU B 437	1.709	51.240	52.181	1.00	23.51	N
ATOM	7356	CA	GLU B 437	0.548	51.827	52.856	1.00	24.49	C
ATOM	7358	CB	GLU B 437	-0.209	50.754	53.671	1.00	24.99	C
ATOM	7361	CG	GLU B 437	-1.228	49.931	52.862	1.00	28.62	C
ATOM	7364	CD	GLU B 437	-1.545	48.518	53.432	1.00	33.03	C
ATOM	7365	OE1	GLU B 437	-1.696	47.556	52.624	1.00	35.00	O
ATOM	7366	OE2	GLU B 437	-1.657	48.345	54.671	1.00	33.87	O
ATOM	7367	C	GLU B 437	1.006	52.968	53.771	1.00	24.70	C
ATOM	7368	O	GLU B 437	0.335	54.007	53.864	1.00	24.42	O
ATOM	7369	N	GLN B 438	2.155	52.772	54.424	1.00	24.99	N
ATOM	7371	CA	GLN B 438	2.742	53.772	55.314	1.00	25.30	C
ATOM	7373	CB	GLN B 438	3.912	53.186	56.108	1.00	24.95	C
ATOM	7376	CG	GLN B 438	4.750	54.232	56.863	1.00	24.18	C
ATOM	7379	CD	GLN B 438	4.012	54.826	58.049	1.00	23.98	C
ATOM	7380	OE1	GLN B 438	4.097	54.283	59.143	1.00	24.29	O
ATOM	7381	NE2	GLN B 438	3.295	55.930	57.843	1.00	22.11	N
ATOM	7384	C	GLN B 438	3.207	55.039	54.582	1.00	26.53	C
ATOM	7385	O	GLN B 438	2.925	56.139	55.064	1.00	25.78	O
ATOM	7386	N	VAL B 439	3.943	54.882	53.465	1.00	28.03	N
ATOM	7388	CA	VAL B 439	4.355	56.019	52.617	1.00	29.51	C
ATOM	7390	CB	VAL B 439	5.366	55.646	51.446	1.00	29.86	C
ATOM	7392	CG1	VAL B 439	6.675	55.089	51.971	1.00	30.85	C
ATOM	7396	CG2	VAL B 439	4.785	54.643	50.495	1.00	31.33	C
ATOM	7400	C	VAL B 439	3.133	56.710	52.015	1.00	30.36	C
ATOM	7401	O	VAL B 439	3.102	57.944	51.858	1.00	30.23	O
ATOM	7402	N	PHE B 440	2.113	55.925	51.691	1.00	31.79	N
ATOM	7404	CA	PHE B 440	0.884	56.523	51.209	1.00	33.28	C
ATOM	7406	CB	PHE B 440	-0.177	55.481	50.799	1.00	33.50	C
ATOM	7409	CG	PHE B 440	-1.397	56.109	50.175	1.00	35.31	C
ATOM	7410	CD1	PHE B 440	-1.357	56.572	48.848	1.00	37.12	C
ATOM	7412	CE1	PHE B 440	-2.458	57.188	48.277	1.00	36.48	C
ATOM	7414	CZ	PHE B 440	-3.613	57.377	49.041	1.00	36.71	C
ATOM	7416	CE2	PHE B 440	-3.660	56.946	50.364	1.00	36.17	C
ATOM	7418	CD2	PHE B 440	-2.551	56.322	50.927	1.00	36.31	C
ATOM	7420	C	PHE B 440	0.379	57.442	52.319	1.00	33.80	C
ATOM	7421	O	PHE B 440	0.318	58.651	52.152	1.00	33.44	O
ATOM	7422	N	ALA B 441	0.093	56.843	53.471	1.00	35.03	N
ATOM	7424	CA	ALA B 441	-0.382	57.555	54.654	1.00	35.88	C
ATOM	7426	CB	ALA B 441	-0.533	56.566	55.813	1.00	35.75	C
ATOM	7430	C	ALA B 441	0.485	58.754	55.097	1.00	36.81	C
ATOM	7431	O	ALA B 441	-0.035	59.685	55.725	1.00	37.00	O
ATOM	7432	N	LEU B 442	1.782	58.735	54.782	1.00	37.81	N
ATOM	7434	CA	LEU B 442	2.689	59.798	55.206	1.00	38.67	C
ATOM	7436	CB	LEU B 442	4.139	59.354	55.124	1.00	38.52	C

273

ATOM	7439	CG	LEU B 442	4.636	58.724	56.433	1.00	38.11	C
ATOM	7441	CD1	LEU B 442	5.920	57.978	56.176	1.00	37.89	C
ATOM	7445	CD2	LEU B 442	4.839	59.754	57.535	1.00	37.08	C
ATOM	7449	C	LEU B 442	2.517	61.082	54.411	1.00	40.14	C
ATOM	7450	O	LEU B 442	2.765	62.165	54.934	1.00	40.85	O
ATOM	7451	N	ARG B 443	2.090	60.982	53.159	1.00	41.45	N
ATOM	7453	CA	ARG B 443	1.875	62.178	52.332	1.00	42.28	C
ATOM	7455	CB	ARG B 443	1.702	61.772	50.869	1.00	42.73	C
ATOM	7458	CG	ARG B 443	2.904	61.040	50.284	1.00	43.42	C
ATOM	7461	CD	ARG B 443	2.729	60.693	48.821	1.00	45.87	C
ATOM	7464	NE	ARG B 443	2.899	61.842	47.916	1.00	47.49	N
ATOM	7466	CZ	ARG B 443	2.812	61.776	46.580	1.00	48.94	C
ATOM	7467	NH1	ARG B 443	2.554	60.622	45.960	1.00	49.43	N
ATOM	7470	NH2	ARG B 443	2.988	62.868	45.846	1.00	49.74	N
ATOM	7473	C	ARG B 443	0.693	63.052	52.783	1.00	42.62	C
ATOM	7474	O	ARG B 443	0.659	64.248	52.492	1.00	42.56	O
ATOM	7475	N	LEU B 444	-0.261	62.456	53.499	1.00	43.25	N
ATOM	7477	CA	LEU B 444	-1.393	63.203	54.072	1.00	43.67	C
ATOM	7479	CB	LEU B 444	-2.505	62.274	54.606	1.00	44.00	C
ATOM	7482	CG	LEU B 444	-2.912	60.948	53.946	1.00	44.89	C
ATOM	7484	CD1	LEU B 444	-3.840	60.183	54.916	1.00	44.64	C
ATOM	7488	CD2	LEU B 444	-3.571	61.163	52.571	1.00	45.14	C
ATOM	7492	C	LEU B 444	-0.964	64.072	55.244	1.00	43.57	C
ATOM	7493	O	LEU B 444	-1.767	64.833	55.767	1.00	43.90	O
ATOM	7494	N	GLN B 445	0.279	63.930	55.687	1.00	43.43	N
ATOM	7496	CA	GLN B 445	0.759	64.627	56.879	1.00	43.35	C
ATOM	7498	CB	GLN B 445	1.100	63.624	58.015	1.00	43.42	C
ATOM	7501	CG	GLN B 445	0.707	62.147	57.735	1.00	44.19	C
ATOM	7504	CD	GLN B 445	0.126	61.412	58.927	1.00	44.36	C
ATOM	7505	OE1	GLN B 445	0.823	60.623	59.559	1.00	45.11	O
ATOM	7506	NE2	GLN B 445	-1.155	61.646	59.220	1.00	43.92	N
ATOM	7509	C	GLN B 445	1.958	65.515	56.508	1.00	43.00	C
ATOM	7510	O	GLN B 445	2.807	65.809	57.352	1.00	43.42	O
ATOM	7511	N	ASP B 446	2.004	65.954	55.245	1.00	42.48	N
ATOM	7513	CA	ASP B 446	3.054	66.859	54.724	1.00	41.88	C
ATOM	7515	CB	ASP B 446	3.150	68.157	55.583	1.00	42.24	C
ATOM	7518	CG	ASP B 446	2.425	69.372	54.954	1.00	43.60	C
ATOM	7519	OD1	ASP B 446	2.283	69.440	53.705	1.00	44.77	O
ATOM	7520	OD2	ASP B 446	1.986	70.328	55.654	1.00	45.73	O
ATOM	7521	C	ASP B 446	4.435	66.163	54.600	1.00	40.47	C
ATOM	7522	O	ASP B 446	5.475	66.823	54.481	1.00	40.55	O
ATOM	7523	N	LYS B 447	4.443	64.834	54.599	1.00	38.43	N
ATOM	7525	CA	LYS B 447	5.693	64.099	54.620	1.00	37.05	C
ATOM	7527	CB	LYS B 447	5.768	63.228	55.883	1.00	37.04	C
ATOM	7530	CG	LYS B 447	5.925	64.038	57.192	1.00	36.58	C
ATOM	7533	CD	LYS B 447	6.149	63.134	58.382	1.00	36.12	C
ATOM	7536	CE	LYS B 447	6.249	63.897	59.653	1.00	35.81	C
ATOM	7539	NZ	LYS B 447	4.944	64.489	59.979	1.00	36.74	N

274

ATOM	7543	C	LYS B 447	5.885	63.284	53.334	1.00	36.02	C
ATOM	7544	O	LYS B 447	5.567	62.091	53.266	1.00	36.06	O
ATOM	7545	N	LYS B 448	6.408	63.958	52.311	1.00	34.70	N
ATOM	7547	CA	LYS B 448	6.759	63.325	51.039	1.00	33.31	C
ATOM	7549	CB	LYS B 448	6.669	64.320	49.883	1.00	33.27	C
ATOM	7552	CG	LYS B 448	5.275	64.890	49.699	1.00	34.19	C
ATOM	7555	CD	LYS B 448	5.283	66.251	49.021	1.00	34.98	C
ATOM	7558	CE	LYS B 448	4.235	67.183	49.621	1.00	35.27	C
ATOM	7561	NZ	LYS B 448	3.627	68.028	48.576	1.00	34.97	N
ATOM	7565	C	LYS B 448	8.169	62.832	51.140	1.00	31.74	C
ATOM	7566	O	LYS B 448	9.022	63.518	51.685	1.00	31.55	O
ATOM	7567	N	LEU B 449	8.412	61.642	50.608	1.00	30.04	N
ATOM	7569	CA	LEU B 449	9.750	61.071	50.579	1.00	28.75	C
ATOM	7571	CB	LEU B 449	9.701	59.675	49.961	1.00	28.54	C
ATOM	7574	CG	LEU B 449	8.773	58.628	50.582	1.00	28.08	C
ATOM	7576	CD1	LEU B 449	8.490	57.527	49.579	1.00	27.98	C
ATOM	7580	CD2	LEU B 449	9.369	58.038	51.852	1.00	27.62	C
ATOM	7584	C	LEU B 449	10.660	61.982	49.748	1.00	27.73	C
ATOM	7585	O	LEU B 449	10.156	62.590	48.820	1.00	27.76	O
ATOM	7586	N	PRO B 450	11.962	62.097	50.070	1.00	26.77	N
ATOM	7587	CA	PRO B 450	12.933	62.812	49.220	1.00	26.60	C
ATOM	7589	CB	PRO B 450	14.229	62.728	50.031	1.00	26.41	C
ATOM	7592	CG	PRO B 450	14.065	61.540	50.847	1.00	26.30	C
ATOM	7595	CD	PRO B 450	12.631	61.559	51.264	1.00	26.56	C
ATOM	7598	C	PRO B 450	13.138	62.151	47.850	1.00	26.48	C
ATOM	7599	O	PRO B 450	12.644	61.047	47.694	1.00	26.36	O
ATOM	7600	N	PRO B 451	13.803	62.804	46.894	1.00	26.69	N
ATOM	7601	CA	PRO B 451	13.980	62.256	45.533	1.00	26.91	C
ATOM	7603	CB	PRO B 451	14.962	63.232	44.886	1.00	26.97	C
ATOM	7606	CG	PRO B 451	14.749	64.553	45.638	1.00	26.63	C
ATOM	7609	CD	PRO B 451	14.371	64.163	47.023	1.00	26.77	C
ATOM	7612	C	PRO B 451	14.486	60.792	45.404	1.00	27.34	C
ATOM	7613	O	PRO B 451	13.804	60.024	44.722	1.00	27.32	O
ATOM	7614	N	LEU B 452	15.598	60.394	46.021	1.00	27.60	N
ATOM	7616	CA	LEU B 452	16.093	59.030	45.808	1.00	28.03	C
ATOM	7618	CB	LEU B 452	17.507	58.826	46.389	1.00	28.73	C
ATOM	7621	CG	LEU B 452	18.165	57.425	46.196	1.00	31.15	C
ATOM	7623	CD1	LEU B 452	18.178	56.894	44.714	1.00	31.92	C
ATOM	7627	CD2	LEU B 452	19.606	57.399	46.767	1.00	32.38	C
ATOM	7631	C	LEU B 452	15.121	57.952	46.325	1.00	27.55	C
ATOM	7632	O	LEU B 452	15.012	56.874	45.734	1.00	28.06	O
ATOM	7633	N	LEU B 453	14.399	58.237	47.401	1.00	27.00	N
ATOM	7635	CA	LEU B 453	13.393	57.294	47.923	1.00	26.27	C
ATOM	7637	CB	LEU B 453	13.138	57.540	49.407	1.00	25.68	C
ATOM	7640	CG	LEU B 453	14.400	57.532	50.278	1.00	24.28	C
ATOM	7642	CD1	LEU B 453	14.057	57.776	51.757	1.00	23.69	C
ATOM	7646	CD2	LEU B 453	15.198	56.240	50.093	1.00	22.47	C
ATOM	7650	C	LEU B 453	12.072	57.356	47.153	1.00	26.62	C

275

ATOM	7651	O	LEU B 453	11.378	56.374	47.071	1.00	26.26	O
ATOM	7652	N	SER B 454	11.719	58.510	46.593	1.00	27.23	N
ATOM	7654	CA	SER B 454	10.516	58.629	45.771	1.00	27.56	C
ATOM	7656	CB	SER B 454	10.341	60.051	45.256	1.00	27.17	C
ATOM	7659	OG	SER B 454	9.176	60.137	44.461	1.00	26.82	O
ATOM	7661	C	SER B 454	10.546	57.685	44.570	1.00	28.60	C
ATOM	7662	O	SER B 454	9.548	57.055	44.247	1.00	28.67	O
ATOM	7663	N	GLU B 455	11.684	57.578	43.900	1.00	29.39	N
ATOM	7665	CA	GLU B 455	11.711	56.799	42.693	1.00	30.28	C
ATOM	7667	CB	GLU B 455	12.880	57.192	41.804	1.00	30.98	C
ATOM	7670	CG	GLU B 455	14.270	56.907	42.332	1.00	34.53	C
ATOM	7673	CD	GLU B 455	15.352	57.392	41.361	1.00	39.06	C
ATOM	7674	OE1	GLU B 455	15.249	57.056	40.142	1.00	41.53	O
ATOM	7675	OE2	GLU B 455	16.300	58.099	41.809	1.00	40.65	O
ATOM	7676	C	GLU B 455	11.659	55.306	42.947	1.00	30.47	C
ATOM	7677	O	GLU B 455	11.347	54.555	42.035	1.00	30.99	O
ATOM	7678	N	ILE B 456	11.917	54.868	44.176	1.00	30.71	N
ATOM	7680	CA	ILE B 456	11.794	53.440	44.533	1.00	30.70	C
ATOM	7682	CB	ILE B 456	12.909	53.005	45.536	1.00	30.90	C
ATOM	7684	CG1	ILE B 456	14.241	53.638	45.165	1.00	32.23	C
ATOM	7687	CD1	ILE B 456	15.194	53.630	46.299	1.00	33.86	C
ATOM	7691	CG2	ILE B 456	13.105	51.465	45.551	1.00	30.72	C
ATOM	7695	C	ILE B 456	10.423	53.077	45.118	1.00	30.23	C
ATOM	7696	O	ILE B 456	9.972	51.948	44.964	1.00	30.77	O
ATOM	7697	N	TRP B 457	9.754	54.015	45.781	1.00	29.72	N
ATOM	7699	CA	TRP B 457	8.610	53.668	46.626	1.00	29.22	C
ATOM	7701	CB	TRP B 457	8.993	53.752	48.104	1.00	29.06	C
ATOM	7704	CG	TRP B 457	10.023	52.799	48.544	1.00	26.61	C
ATOM	7705	CD1	TRP B 457	10.233	51.534	48.082	1.00	26.22	C
ATOM	7707	NE1	TRP B 457	11.267	50.950	48.771	1.00	25.62	N
ATOM	7709	CE2	TRP B 457	11.742	51.844	49.689	1.00	23.49	C
ATOM	7710	CD2	TRP B 457	10.969	53.014	49.575	1.00	23.71	C
ATOM	7711	CE3	TRP B 457	11.244	54.082	50.426	1.00	23.40	C
ATOM	7713	CZ3	TRP B 457	12.278	53.953	51.353	1.00	22.52	C
ATOM	7715	CH2	TRP B 457	13.016	52.780	51.435	1.00	23.80	C
ATOM	7717	CZ2	TRP B 457	12.765	51.711	50.606	1.00	23.37	C
ATOM	7719	C	TRP B 457	7.360	54.498	46.430	1.00	29.43	C
ATOM	7720	O	TRP B 457	6.335	54.165	46.996	1.00	30.24	O
ATOM	7721	N	ASP B 458	7.414	55.582	45.680	1.00	29.55	N
ATOM	7723	CA	ASP B 458	6.172	56.245	45.270	1.00	29.58	C
ATOM	7725	CB	ASP B 458	6.383	57.748	44.993	1.00	29.62	C
ATOM	7728	CG	ASP B 458	6.558	58.597	46.270	1.00	29.19	C
ATOM	7729	OD1	ASP B 458	5.853	58.388	47.276	1.00	27.26	O
ATOM	7730	OD2	ASP B 458	7.375	59.536	46.325	1.00	29.12	O
ATOM	7731	C	ASP B 458	5.643	55.547	44.020	1.00	29.27	C
ATOM	7732	O	ASP B 458	4.540	55.010	44.023	1.00	29.42	O
ATOM	7733	O13	444 B 500	15.894	52.486	56.865	1.00	48.14	O
ATOM	7734	S12	444 B 500	15.474	51.542	57.867	1.00	46.56	S

276

ATOM	7735	O14 444 B 500	16.396	50.427	58.018	1.00	48.32	O
ATOM	7736	C01 444 B 500	15.582	52.491	59.353	1.00	48.77	C
ATOM	7737	C02 444 B 500	15.889	51.818	60.575	1.00	50.65	C
ATOM	7739	C03 444 B 500	15.958	52.565	61.760	1.00	51.57	C
ATOM	7741	C04 444 B 500	15.718	53.958	61.711	1.00	52.37	C
ATOM	7743	C05 444 B 500	15.406	54.615	60.487	1.00	51.11	C
ATOM	7745	C06 444 B 500	15.333	53.878	59.291	1.00	49.40	C
ATOM	7747	N15 444 B 500	13.727	51.138	57.775	1.00	36.30	N
ATOM	7748	C16 444 B 500	13.081	50.396	58.957	1.00	33.50	C
ATOM	7751	C19 444 B 500	12.351	49.166	58.482	1.00	31.89	C
ATOM	7752	F22 444 B 500	12.007	48.424	59.531	1.00	31.80	F
ATOM	7753	F21 444 B 500	13.079	48.342	57.710	1.00	31.53	F
ATOM	7754	F20 444 B 500	11.241	49.447	57.804	1.00	32.02	F
ATOM	7755	C23 444 B 500	12.784	52.170	57.243	1.00	29.65	C
ATOM	7756	C24 444 B 500	12.771	52.362	55.844	1.00	27.35	C
ATOM	7758	C25 444 B 500	11.945	53.318	55.224	1.00	24.31	C
ATOM	7760	C28 444 B 500	11.911	52.985	58.037	1.00	25.39	C
ATOM	7762	C27 444 B 500	11.090	53.944	57.426	1.00	23.40	C
ATOM	7764	C26 444 B 500	11.076	54.137	56.001	1.00	22.41	C
ATOM	7765	C33 444 B 500	10.204	55.176	55.214	1.00	21.07	C
ATOM	7766	C34 444 B 500	8.816	55.450	55.874	1.00	21.30	C
ATOM	7767	F36 444 B 500	8.015	56.167	55.037	1.00	20.33	F
ATOM	7768	F37 444 B 500	8.113	54.341	56.184	1.00	21.82	F
ATOM	7769	F35 444 B 500	8.986	56.096	57.053	1.00	21.46	F
ATOM	7770	O42 444 B 500	9.950	54.781	53.835	1.00	19.04	O
ATOM	7772	C38 444 B 500	10.934	56.551	55.213	1.00	19.74	C
ATOM	7773	F39 444 B 500	11.397	56.954	56.422	1.00	18.29	F
ATOM	7774	F40 444 B 500	12.019	56.555	54.437	1.00	18.70	F
ATOM	7775	F41 444 B 500	10.199	57.555	54.733	1.00	20.76	F
ATOM	7776	N LEU C 220	68.407	95.876	84.954	1.00	20.46	N
ATOM	7778	CA LEU C 220	67.795	94.552	85.306	1.00	20.58	C
ATOM	7780	CB LEU C 220	67.642	93.651	84.059	1.00	20.70	C
ATOM	7783	CG LEU C 220	66.308	92.899	83.802	1.00	21.24	C
ATOM	7785	CD1 LEU C 220	66.541	91.475	83.287	1.00	21.11	C
ATOM	7789	CD2 LEU C 220	65.368	92.881	85.008	1.00	21.74	C
ATOM	7793	C LEU C 220	68.596	93.807	86.390	1.00	20.21	C
ATOM	7794	O LEU C 220	69.637	93.195	86.108	1.00	20.49	O
ATOM	7797	N THR C 221	68.083	93.847	87.621	1.00	19.34	N
ATOM	7799	CA THR C 221	68.701	93.172	88.756	1.00	18.30	C
ATOM	7801	CB THR C 221	68.088	93.684	90.106	1.00	18.36	C
ATOM	7803	OG1 THR C 221	66.687	93.393	90.171	1.00	17.31	O
ATOM	7805	CG2 THR C 221	68.162	95.212	90.228	1.00	17.98	C
ATOM	7809	C THR C 221	68.554	91.650	88.643	1.00	17.61	C
ATOM	7810	O THR C 221	67.801	91.155	87.820	1.00	17.01	O
ATOM	7811	N ALA C 222	69.283	90.924	89.484	1.00	17.25	N
ATOM	7813	CA ALA C 222	69.198	89.469	89.543	1.00	16.96	C
ATOM	7815	CB ALA C 222	70.278	88.938	90.408	1.00	16.75	C
ATOM	7819	C ALA C 222	67.836	89.005	90.069	1.00	16.95	C

277

ATOM	7820	O	ALA C 222	67.353	87.956	89.647	1.00	16.95	O
ATOM	7821	N	ALA C 223	67.249	89.795	90.985	1.00	16.64	N
ATOM	7823	CA	ALA C 223	65.931	89.534	91.604	1.00	15.98	C
ATOM	7825	CB	ALA C 223	65.719	90.403	92.862	1.00	15.97	C
ATOM	7829	C	ALA C 223	64.775	89.752	90.689	1.00	15.40	C
ATOM	7830	O	ALA C 223	63.752	89.128	90.860	1.00	15.83	O
ATOM	7831	N	GLN C 224	64.902	90.685	89.762	1.00	15.28	N
ATOM	7833	CA	GLN C 224	63.905	90.856	88.704	1.00	15.26	C
ATOM	7835	CB	GLN C 224	64.125	92.170	87.974	1.00	15.26	C
ATOM	7838	CG	GLN C 224	63.680	93.387	88.762	1.00	16.25	C
ATOM	7841	CD	GLN C 224	63.977	94.673	88.018	1.00	18.24	C
ATOM	7842	OE1	GLN C 224	65.101	94.846	87.514	1.00	19.96	O
ATOM	7843	NE2	GLN C 224	62.972	95.569	87.910	1.00	16.95	N
ATOM	7846	C	GLN C 224	64.006	89.698	87.722	1.00	15.13	C
ATOM	7847	O	GLN C 224	62.996	89.093	87.358	1.00	14.53	O
ATOM	7848	N	GLU C 225	65.238	89.374	87.332	1.00	15.32	N
ATOM	7850	CA	GLU C 225	65.519	88.156	86.572	1.00	15.82	C
ATOM	7852	CB	GLU C 225	67.020	88.011	86.331	1.00	16.20	C
ATOM	7855	CG	GLU C 225	67.485	88.956	85.233	1.00	18.35	C
ATOM	7858	CD	GLU C 225	68.906	88.731	84.764	1.00	20.57	C
ATOM	7859	OE1	GLU C 225	69.832	88.588	85.616	1.00	20.32	O
ATOM	7860	OE2	GLU C 225	69.079	88.724	83.521	1.00	22.87	O
ATOM	7861	C	GLU C 225	64.962	86.894	87.235	1.00	15.54	C
ATOM	7862	O	GLU C 225	64.339	86.086	86.569	1.00	15.47	O
ATOM	7863	N	LEU C 226	65.135	86.751	88.546	1.00	15.44	N
ATOM	7865	CA	LEU C 226	64.630	85.576	89.247	1.00	15.46	C
ATOM	7867	CB	LEU C 226	65.038	85.553	90.720	1.00	15.43	C
ATOM	7870	CG	LEU C 226	64.717	84.249	91.476	1.00	15.47	C
ATOM	7872	CD1	LEU C 226	65.124	83.034	90.639	1.00	16.08	C
ATOM	7876	CD2	LEU C 226	65.384	84.197	92.860	1.00	14.23	C
ATOM	7880	C	LEU C 226	63.127	85.489	89.191	1.00	15.85	C
ATOM	7881	O	LEU C 226	62.596	84.406	88.999	1.00	15.93	O
ATOM	7882	N	MET C 227	62.429	86.607	89.369	1.00	15.98	N
ATOM	7884	CA	MET C 227	60.986	86.516	89.433	1.00	16.23	C
ATOM	7886	CB	MET C 227	60.334	87.695	90.154	1.00	16.93	C
ATOM	7889	CG	MET C 227	60.180	88.921	89.351	1.00	19.81	C
ATOM	7892	SD	MET C 227	58.651	89.062	88.383	1.00	21.98	S
ATOM	7893	CE	MET C 227	58.925	90.815	88.003	1.00	19.64	C
ATOM	7897	C	MET C 227	60.429	86.360	88.068	1.00	15.44	C
ATOM	7898	O	MET C 227	59.376	85.790	87.945	1.00	15.35	O
ATOM	7899	N	ILE C 228	61.125	86.861	87.050	1.00	14.99	N
ATOM	7901	CA	ILE C 228	60.671	86.702	85.669	1.00	14.74	C
ATOM	7903	CB	ILE C 228	61.512	87.586	84.698	1.00	15.10	C
ATOM	7905	CG1	ILE C 228	61.087	89.057	84.830	1.00	16.01	C
ATOM	7908	CD1	ILE C 228	62.068	90.078	84.206	1.00	15.97	C
ATOM	7912	CG2	ILE C 228	61.363	87.116	83.225	1.00	14.57	C
ATOM	7916	C	ILE C 228	60.754	85.239	85.275	1.00	14.01	C
ATOM	7917	O	ILE C 228	59.870	84.691	84.626	1.00	12.80	O

278

ATOM	7918	N	GLN C 229	61.834	84.619	85.720	1.00	14.08	N
ATOM	7920	CA	GLN C 229	62.113	83.209	85.457	1.00	14.15	C
ATOM	7922	CB	GLN C 229	63.500	82.856	85.991	1.00	14.35	C
ATOM	7925	CG	GLN C 229	64.174	81.669	85.348	1.00	15.62	C
ATOM	7928	CD	GLN C 229	65.316	81.142	86.203	1.00	16.13	C
ATOM	7929	OE1	GLN C 229	65.423	79.947	86.395	1.00	16.72	O
ATOM	7930	NE2	GLN C 229	66.150	82.038	86.730	1.00	15.74	N
ATOM	7933	C	GLN C 229	61.057	82.331	86.094	1.00	13.31	C
ATOM	7934	O	GLN C 229	60.509	81.470	85.425	1.00	12.93	O
ATOM	7935	N	GLN C 230	60.768	82.592	87.370	1.00	12.70	N
ATOM	7937	CA	GLN C 230	59.681	81.946	88.090	1.00	12.92	C
ATOM	7939	CB	GLN C 230	59.694	82.346	89.572	1.00	12.73	C
ATOM	7942	CG	GLN C 230	60.986	81.999	90.285	1.00	12.90	C
ATOM	7945	CD	GLN C 230	60.801	81.507	91.697	1.00	13.18	C
ATOM	7946	OE1	GLN C 230	60.394	80.380	91.915	1.00	14.26	O
ATOM	7947	NE2	GLN C 230	61.136	82.336	92.659	1.00	14.08	N
ATOM	7950	C	GLN C 230	58.290	82.199	87.455	1.00	13.57	C
ATOM	7951	O	GLN C 230	57.493	81.298	87.404	1.00	13.61	O
ATOM	7952	N	LEU C 231	57.999	83.401	86.960	1.00	14.58	N
ATOM	7954	CA	LEU C 231	56.758	83.645	86.217	1.00	15.16	C
ATOM	7956	CB	LEU C 231	56.575	85.121	85.855	1.00	15.37	C
ATOM	7959	CG	LEU C 231	56.062	86.070	86.952	1.00	16.43	C
ATOM	7961	CD1	LEU C 231	55.947	87.467	86.338	1.00	16.51	C
ATOM	7965	CD2	LEU C 231	54.732	85.634	87.621	1.00	16.52	C
ATOM	7969	C	LEU C 231	56.678	82.823	84.948	1.00	15.35	C
ATOM	7970	O	LEU C 231	55.615	82.333	84.610	1.00	15.14	O
ATOM	7971	N	VAL C 232	57.795	82.666	84.251	1.00	15.94	N
ATOM	7973	CA	VAL C 232	57.812	81.880	83.020	1.00	16.58	C
ATOM	7975	CB	VAL C 232	59.152	82.087	82.231	1.00	16.85	C
ATOM	7977	CG1	VAL C 232	59.405	80.995	81.196	1.00	17.02	C
ATOM	7981	CG2	VAL C 232	59.161	83.455	81.558	1.00	17.16	C
ATOM	7985	C	VAL C 232	57.562	80.415	83.366	1.00	17.03	C
ATOM	7986	O	VAL C 232	56.726	79.770	82.762	1.00	17.47	O
ATOM	7987	N	ALA C 233	58.268	79.899	84.367	1.00	17.59	N
ATOM	7989	CA	ALA C 233	58.123	78.508	84.777	1.00	17.55	C
ATOM	7991	CB	ALA C 233	59.068	78.211	85.893	1.00	17.17	C
ATOM	7995	C	ALA C 233	56.686	78.203	85.202	1.00	18.36	C
ATOM	7996	O	ALA C 233	56.148	77.165	84.849	1.00	18.30	O
ATOM	7997	N	ALA C 234	56.081	79.114	85.964	1.00	19.19	N
ATOM	7999	CA	ALA C 234	54.691	79.022	86.381	1.00	19.97	C
ATOM	8001	CB	ALA C 234	54.277	80.311	87.092	1.00	20.01	C
ATOM	8005	C	ALA C 234	53.778	78.803	85.183	1.00	21.16	C
ATOM	8006	O	ALA C 234	52.928	77.918	85.203	1.00	21.00	O
ATOM	8007	N	GLN C 235	53.958	79.640	84.160	1.00	22.27	N
ATOM	8009	CA	GLN C 235	53.189	79.596	82.920	1.00	23.49	C
ATOM	8011	CB	GLN C 235	53.658	80.751	82.032	1.00	23.80	C
ATOM	8014	CG	GLN C 235	52.924	80.935	80.730	1.00	26.40	C
ATOM	8017	CD	GLN C 235	52.370	82.363	80.544	1.00	29.80	C

279

ATOM	8018	OE1 GLN C 235	53.130	83.337	80.427	1.00	30.99	O
ATOM	8019	NE2 GLN C 235	51.047	82.472	80.487	1.00	30.89	N
ATOM	8022	C GLN C 235	53.307	78.225	82.200	1.00	24.09	C
ATOM	8023	O GLN C 235	52.339	77.729	81.585	1.00	23.49	O
ATOM	8024	N LEU C 236	54.482	77.611	82.306	1.00	25.22	N
ATOM	8026	CA LEU C 236	54.736	76.290	81.724	1.00	26.63	C
ATOM	8028	CB LEU C 236	56.226	75.973	81.743	1.00	26.79	C
ATOM	8031	CG LEU C 236	56.787	75.400	80.451	1.00	28.16	C
ATOM	8033	CD1 LEU C 236	56.763	76.459	79.351	1.00	29.45	C
ATOM	8037	CD2 LEU C 236	58.202	74.896	80.685	1.00	29.39	C
ATOM	8041	C LEU C 236	54.006	75.184	82.456	1.00	27.59	C
ATOM	8042	O LEU C 236	53.410	74.312	81.836	1.00	27.49	O
ATOM	8043	N GLN C 237	54.060	75.242	83.785	1.00	29.25	N
ATOM	8045	CA GLN C 237	53.414	74.268	84.682	1.00	30.40	C
ATOM	8047	CB GLN C 237	53.867	74.499	86.135	1.00	30.10	C
ATOM	8050	CG GLN C 237	55.380	74.341	86.351	1.00	30.39	C
ATOM	8053	CD GLN C 237	55.922	75.063	87.603	1.00	30.44	C
ATOM	8054	OE1 GLN C 237	55.217	75.893	88.242	1.00	31.79	O
ATOM	8055	NE2 GLN C 237	57.179	74.752	87.950	1.00	26.66	N
ATOM	8058	C GLN C 237	51.879	74.315	84.603	1.00	31.76	C
ATOM	8059	O GLN C 237	51.201	73.303	84.769	1.00	31.65	O
ATOM	8060	N CYS C 238	51.337	75.494	84.350	1.00	33.85	N
ATOM	8062	CA CYS C 238	49.903	75.652	84.231	1.00	36.00	C
ATOM	8064	CB CYS C 238	49.534	77.116	84.461	1.00	36.02	C
ATOM	8067	SG CYS C 238	49.621	77.474	86.236	1.00	37.59	S
ATOM	8068	C CYS C 238	49.386	75.105	82.891	1.00	37.79	C
ATOM	8069	O CYS C 238	48.207	74.813	82.764	1.00	37.55	O
ATOM	8070	N ASN C 239	50.285	74.946	81.921	1.00	40.34	N
ATOM	8072	CA ASN C 239	50.019	74.205	80.698	1.00	42.63	C
ATOM	8074	CB ASN C 239	51.118	74.510	79.681	1.00	42.83	C
ATOM	8077	CG ASN C 239	50.786	74.006	78.315	1.00	44.12	C
ATOM	8078	OD1 ASN C 239	49.798	74.422	77.728	1.00	46.84	O
ATOM	8079	ND2 ASN C 239	51.598	73.085	77.798	1.00	46.09	N
ATOM	8082	C ASN C 239	49.939	72.691	80.963	1.00	44.86	C
ATOM	8083	O ASN C 239	50.957	71.989	80.997	1.00	45.24	O
ATOM	8084	N LYS C 240	48.732	72.182	81.187	1.00	47.39	N
ATOM	8086	CA LYS C 240	48.550	70.748	81.424	1.00	49.15	C
ATOM	8088	CB LYS C 240	47.781	70.503	82.729	1.00	49.57	C
ATOM	8091	CG LYS C 240	48.507	70.929	84.012	1.00	50.75	C
ATOM	8094	CD LYS C 240	47.948	70.193	85.265	1.00	52.28	C
ATOM	8097	CE LYS C 240	47.419	71.177	86.342	1.00	53.52	C
ATOM	8100	NZ LYS C 240	47.743	70.775	87.756	1.00	53.89	N
ATOM	8104	C LYS C 240	47.804	70.106	80.254	1.00	50.30	C
ATOM	8105	O LYS C 240	47.424	68.938	80.323	1.00	50.42	O
ATOM	8106	N ARG C 241	47.601	70.873	79.184	1.00	51.69	N
ATOM	8108	CA ARG C 241	46.918	70.388	77.987	1.00	52.70	C
ATOM	8110	CB ARG C 241	46.974	71.449	76.886	1.00	52.54	C
ATOM	8113	CG ARG C 241	46.146	72.674	77.168	1.00	51.29	C

280

ATOM	8116	CD	ARG C 241	46.528	73.889	76.361	1.00	49.48	C
ATOM	8119	NE	ARG C 241	45.874	75.080	76.905	1.00	48.48	N
ATOM	8121	CZ	ARG C 241	45.827	76.268	76.306	1.00	47.84	C
ATOM	8122	NH1	ARG C 241	46.379	76.469	75.115	1.00	47.82	N
ATOM	8125	NH2	ARG C 241	45.207	77.269	76.909	1.00	48.35	N
ATOM	8128	C	ARG C 241	47.557	69.102	77.465	1.00	54.27	C
ATOM	8129	O	ARG C 241	46.900	68.060	77.338	1.00	54.32	O
ATOM	8130	N	SER C 242	48.850	69.180	77.173	1.00	55.92	N
ATOM	8132	CA	SER C 242	49.563	68.050	76.591	1.00	57.26	C
ATOM	8134	CB	SER C 242	51.019	68.420	76.283	1.00	57.29	C
ATOM	8137	OG	SER C 242	51.473	69.444	77.157	1.00	58.10	O
ATOM	8139	C	SER C 242	49.477	66.799	77.479	1.00	58.42	C
ATOM	8140	O	SER C 242	49.664	65.676	76.975	1.00	59.11	O
ATOM	8141	N	PHE C 243	49.206	66.980	78.781	1.00	59.46	N
ATOM	8143	CA	PHE C 243	48.865	65.854	79.686	1.00	60.31	C
ATOM	8145	CB	PHE C 243	50.077	65.405	80.541	1.00	60.66	C
ATOM	8148	CG	PHE C 243	50.153	66.059	81.920	1.00	62.56	C
ATOM	8149	CD1	PHE C 243	50.147	65.278	83.098	1.00	64.33	C
ATOM	8151	CE1	PHE C 243	50.223	65.895	84.379	1.00	64.98	C
ATOM	8153	CZ	PHE C 243	50.311	67.300	84.473	1.00	64.86	C
ATOM	8155	CE2	PHE C 243	50.329	68.078	83.298	1.00	64.42	C
ATOM	8157	CD2	PHE C 243	50.251	67.455	82.038	1.00	63.80	C
ATOM	8159	C	PHE C 243	47.669	66.186	80.583	1.00	60.21	C
ATOM	8160	O	PHE C 243	46.533	65.826	80.274	1.00	60.43	O
ATOM	8161	N	LYS C 248	39.626	65.075	76.301	1.00	41.86	N
ATOM	8163	CA	LYS C 248	38.541	65.296	77.242	1.00	42.05	C
ATOM	8165	CB	LYS C 248	38.891	66.465	78.181	1.00	42.47	C
ATOM	8168	CG	LYS C 248	40.049	66.219	79.139	1.00	44.16	C
ATOM	8171	CD	LYS C 248	39.649	65.197	80.180	1.00	46.13	C
ATOM	8174	CE	LYS C 248	40.526	65.235	81.417	1.00	46.95	C
ATOM	8177	NZ	LYS C 248	40.322	63.973	82.231	1.00	47.61	N
ATOM	8181	C	LYS C 248	37.239	65.645	76.521	1.00	41.37	C
ATOM	8182	O	LYS C 248	36.147	65.300	76.996	1.00	41.73	O
ATOM	8183	N	VAL C 249	37.379	66.289	75.357	1.00	40.21	N
ATOM	8185	CA	VAL C 249	36.464	67.352	74.905	1.00	39.12	C
ATOM	8187	CB	VAL C 249	37.311	68.530	74.334	1.00	39.26	C
ATOM	8189	CG1	VAL C 249	36.471	69.495	73.527	1.00	39.31	C
ATOM	8193	CG2	VAL C 249	38.051	69.262	75.467	1.00	39.63	C
ATOM	8197	C	VAL C 249	35.472	66.941	73.834	1.00	37.78	C
ATOM	8198	O	VAL C 249	35.825	66.168	72.963	1.00	37.84	O
ATOM	8199	N	THR C 250	34.256	67.496	73.880	1.00	36.34	N
ATOM	8201	CA	THR C 250	33.251	67.297	72.826	1.00	35.50	C
ATOM	8203	CB	THR C 250	32.101	68.355	72.890	1.00	35.49	C
ATOM	8205	OG1	THR C 250	31.341	68.188	74.086	1.00	35.88	O
ATOM	8207	CG2	THR C 250	31.040	68.134	71.808	1.00	34.99	C
ATOM	8211	C	THR C 250	33.918	67.351	71.458	1.00	34.68	C
ATOM	8212	O	THR C 250	34.625	68.304	71.143	1.00	34.47	O
ATOM	8213	N	PRO C 251	33.698	66.327	70.643	1.00	33.91	N

281

ATOM	8214	CA	PRO C 251	34.356	66.253	69.339	1.00	33.43	C
ATOM	8216	CB	PRO C 251	33.774	64.977	68.720	1.00	33.40	C
ATOM	8219	CG	PRO C 251	33.089	64.256	69.797	1.00	33.58	C
ATOM	8222	CD	PRO C 251	32.787	65.193	70.878	1.00	33.69	C
ATOM	8225	C	PRO C 251	34.011	67.452	68.462	1.00	32.89	C
ATOM	8226	O	PRO C 251	32.862	67.908	68.471	1.00	32.37	O
ATOM	8227	N	TRP C 252	34.986	67.957	67.718	1.00	32.56	N
ATOM	8229	CA	TRP C 252	34.679	68.934	66.686	1.00	32.35	C
ATOM	8231	CB	TRP C 252	35.944	69.601	66.140	1.00	32.11	C
ATOM	8234	CG	TRP C 252	35.644	70.693	65.138	1.00	29.88	C
ATOM	8235	CD1	TRP C 252	35.682	70.590	63.784	1.00	28.00	C
ATOM	8237	NE1	TRP C 252	35.329	71.785	63.212	1.00	27.26	N
ATOM	8239	CE2	TRP C 252	35.055	72.690	64.201	1.00	26.41	C
ATOM	8240	CD2	TRP C 252	35.243	72.035	65.427	1.00	27.25	C
ATOM	8241	CE3	TRP C 252	35.012	72.751	66.608	1.00	27.05	C
ATOM	8243	CZ3	TRP C 252	34.615	74.085	66.525	1.00	26.17	C
ATOM	8245	CH2	TRP C 252	34.447	74.706	65.284	1.00	25.83	C
ATOM	8247	CZ2	TRP C 252	34.661	74.028	64.116	1.00	25.44	C
ATOM	8249	C	TRP C 252	33.952	68.186	65.570	1.00	32.80	C
ATOM	8250	O	TRP C 252	34.509	67.232	65.025	1.00	32.69	O
ATOM	8251	N	PRO C 253	32.713	68.574	65.253	1.00	33.34	N
ATOM	8252	CA	PRO C 253	31.984	67.939	64.147	1.00	33.88	C
ATOM	8254	CB	PRO C 253	30.613	68.655	64.147	1.00	33.74	C
ATOM	8257	CG	PRO C 253	30.713	69.791	65.065	1.00	33.48	C
ATOM	8260	CD	PRO C 253	31.897	69.594	65.939	1.00	33.29	C
ATOM	8263	C	PRO C 253	32.697	68.001	62.763	1.00	34.60	C
ATOM	8264	O	PRO C 253	32.411	68.878	61.939	1.00	34.89	O
ATOM	8265	N	ALA C 254	33.605	67.045	62.532	1.00	35.09	N
ATOM	8267	CA	ALA C 254	34.331	66.899	61.271	1.00	35.12	C
ATOM	8269	CB	ALA C 254	35.663	66.175	61.496	1.00	35.06	C
ATOM	8273	C	ALA C 254	33.462	66.113	60.299	1.00	34.95	C
ATOM	8274	O	ALA C 254	32.531	66.666	59.720	1.00	34.81	O
ATOM	8275	N	GLN C 259	26.034	75.361	59.136	1.00	34.42	N
ATOM	8277	CA	GLN C 259	24.632	75.823	59.219	1.00	34.77	C
ATOM	8279	CB	GLN C 259	24.152	76.445	57.876	1.00	35.11	C
ATOM	8282	CG	GLN C 259	23.924	78.004	57.935	1.00	36.15	C
ATOM	8285	CD	GLN C 259	22.642	78.488	57.206	1.00	37.82	C
ATOM	8286	OE1	GLN C 259	22.260	79.675	57.322	1.00	39.20	O
ATOM	8287	NE2	GLN C 259	21.988	77.583	56.462	1.00	35.43	N
ATOM	8290	C	GLN C 259	23.602	74.780	59.740	1.00	34.03	C
ATOM	8291	O	GLN C 259	22.420	75.113	59.872	1.00	33.75	O
ATOM	8292	N	SER C 260	24.036	73.549	60.044	1.00	33.33	N
ATOM	8294	CA	SER C 260	23.219	72.625	60.853	1.00	32.74	C
ATOM	8296	CB	SER C 260	23.827	71.210	60.892	1.00	32.55	C
ATOM	8299	OG	SER C 260	23.138	70.349	61.793	1.00	31.99	O
ATOM	8301	C	SER C 260	23.115	73.227	62.262	1.00	32.60	C
ATOM	8302	O	SER C 260	24.105	73.762	62.787	1.00	32.47	O
ATOM	8303	N	ARG C 261	21.920	73.170	62.858	1.00	32.19	N

282

ATOM	8305	CA	ARG C 261	21.679	73.830	64.144	1.00	31.83	C
ATOM	8307	CB	ARG C 261	20.199	74.230	64.335	1.00	31.96	C
ATOM	8310	CG	ARG C 261	19.869	75.702	63.931	1.00	33.08	C
ATOM	8313	CD	ARG C 261	18.946	75.860	62.706	1.00	34.91	C
ATOM	8316	NE	ARG C 261	17.545	75.543	63.025	1.00	36.69	N
ATOM	8318	CZ	ARG C 261	16.934	74.357	62.826	1.00	37.43	C
ATOM	8319	NH1	ARG C 261	17.575	73.322	62.288	1.00	37.47	N
ATOM	8322	NH2	ARG C 261	15.655	74.204	63.171	1.00	37.56	N
ATOM	8325	C	ARG C 261	22.194	72.974	65.295	1.00	31.11	C
ATOM	8326	O	ARG C 261	22.808	73.506	66.213	1.00	31.05	O
ATOM	8327	N	ASP C 262	21.975	71.661	65.234	1.00	30.40	N
ATOM	8329	CA	ASP C 262	22.572	70.736	66.206	1.00	29.93	C
ATOM	8331	CB	ASP C 262	22.117	69.305	65.951	1.00	30.03	C
ATOM	8334	CG	ASP C 262	20.616	69.111	66.142	1.00	30.19	C
ATOM	8335	OD1	ASP C 262	19.944	68.672	65.187	1.00	30.32	O
ATOM	8336	OD2	ASP C 262	20.015	69.349	67.205	1.00	31.11	O
ATOM	8337	C	ASP C 262	24.108	70.782	66.164	1.00	29.57	C
ATOM	8338	O	ASP C 262	24.756	70.638	67.205	1.00	29.64	O
ATOM	8339	N	ALA C 263	24.679	70.986	64.968	1.00	29.00	N
ATOM	8341	CA	ALA C 263	26.142	71.119	64.782	1.00	28.34	C
ATOM	8343	CB	ALA C 263	26.521	70.866	63.329	1.00	28.10	C
ATOM	8347	C	ALA C 263	26.697	72.473	65.227	1.00	28.05	C
ATOM	8348	O	ALA C 263	27.877	72.586	65.584	1.00	28.04	O
ATOM	8349	N	ARG C 264	25.850	73.501	65.169	1.00	27.68	N
ATOM	8351	CA	ARG C 264	26.188	74.837	65.655	1.00	27.18	C
ATOM	8353	CB	ARG C 264	25.058	75.834	65.322	1.00	27.74	C
ATOM	8356	CG	ARG C 264	25.486	77.267	64.952	1.00	30.13	C
ATOM	8359	CD	ARG C 264	24.575	77.961	63.902	1.00	33.50	C
ATOM	8362	NE	ARG C 264	25.125	77.859	62.540	1.00	37.36	N
ATOM	8364	CZ	ARG C 264	26.043	78.688	61.989	1.00	40.28	C
ATOM	8365	NH1	ARG C 264	26.528	79.731	62.662	1.00	41.58	N
ATOM	8368	NH2	ARG C 264	26.482	78.479	60.744	1.00	41.03	N
ATOM	8371	C	ARG C 264	26.391	74.703	67.159	1.00	25.99	C
ATOM	8372	O	ARG C 264	27.453	75.008	67.647	1.00	25.58	O
ATOM	8373	N	GLN C 265	25.374	74.190	67.854	1.00	24.98	N
ATOM	8375	CA	GLN C 265	25.361	73.998	69.305	1.00	24.58	C
ATOM	8377	CB	GLN C 265	24.019	73.382	69.729	1.00	25.17	C
ATOM	8380	CG	GLN C 265	23.785	73.104	71.245	1.00	27.23	C
ATOM	8383	CD	GLN C 265	22.673	72.002	71.480	1.00	31.77	C
ATOM	8384	OE1	GLN C 265	21.664	71.909	70.732	1.00	31.49	O
ATOM	8385	NE2	GLN C 265	22.879	71.169	72.513	1.00	34.62	N
ATOM	8388	C	GLN C 265	26.488	73.106	69.779	1.00	23.29	C
ATOM	8389	O	GLN C 265	27.023	73.314	70.868	1.00	22.92	O
ATOM	8390	N	GLN C 266	26.847	72.114	68.972	1.00	21.85	N
ATOM	8392	CA	GLN C 266	27.948	71.227	69.327	1.00	20.84	C
ATOM	8394	CB	GLN C 266	27.961	69.976	68.460	1.00	21.06	C
ATOM	8397	CG	GLN C 266	29.137	69.048	68.790	1.00	21.74	C
ATOM	8400	CD	GLN C 266	29.085	67.730	68.055	1.00	22.54	C

283

ATOM	8401	OE1 GLN C 266	28.024	67.307	67.577	1.00	22.20	O
ATOM	8402	NE2 GLN C 266	30.238	67.075	67.953	1.00	22.63	N
ATOM	8405	C GLN C 266	29.299	71.917	69.233	1.00	19.52	C
ATOM	8406	O GLN C 266	30.167	71.688	70.057	1.00	19.32	O
ATOM	8407	N ARG C 267	29.485	72.749	68.221	1.00	18.43	N
ATOM	8409	CA ARG C 267	30.707	73.551	68.113	1.00	17.70	C
ATOM	8411	CB ARG C 267	30.783	74.267	66.771	1.00	18.24	C
ATOM	8414	CG ARG C 267	31.132	73.348	65.639	1.00	20.40	C
ATOM	8417	CD ARG C 267	31.076	74.008	64.290	1.00	23.57	C
ATOM	8420	NE ARG C 267	31.321	73.044	63.220	1.00	25.63	N
ATOM	8422	CZ ARG C 267	30.546	72.872	62.166	1.00	27.98	C
ATOM	8423	NH1 ARG C 267	29.445	73.600	62.004	1.00	28.84	N
ATOM	8426	NH2 ARG C 267	30.875	71.960	61.264	1.00	29.05	N
ATOM	8429	C ARG C 267	30.840	74.581	69.204	1.00	15.71	C
ATOM	8430	O ARG C 267	31.925	74.870	69.603	1.00	14.98	O
ATOM	8431	N PHE C 268	29.729	75.146	69.652	1.00	14.61	N
ATOM	8433	CA PHE C 268	29.735	76.136	70.714	1.00	14.06	C
ATOM	8435	CB PHE C 268	28.362	76.820	70.846	1.00	13.77	C
ATOM	8438	CG PHE C 268	28.190	77.607	72.113	1.00	13.29	C
ATOM	8439	CD1 PHE C 268	28.887	78.764	72.316	1.00	14.01	C
ATOM	8441	CE1 PHE C 268	28.730	79.493	73.497	1.00	15.81	C
ATOM	8443	CZ PHE C 268	27.866	79.050	74.481	1.00	15.75	C
ATOM	8445	CE2 PHE C 268	27.157	77.891	74.275	1.00	15.55	C
ATOM	8447	CD2 PHE C 268	27.322	77.179	73.099	1.00	14.11	C
ATOM	8449	C PHE C 268	30.165	75.434	72.001	1.00	13.72	C
ATOM	8450	O PHE C 268	31.000	75.938	72.732	1.00	12.92	O
ATOM	8451	N ALA C 269	29.621	74.248	72.256	1.00	13.79	N
ATOM	8453	CA ALA C 269	30.017	73.470	73.435	1.00	13.65	C
ATOM	8455	CB ALA C 269	29.192	72.179	73.536	1.00	13.09	C
ATOM	8459	C ALA C 269	31.536	73.186	73.394	1.00	13.63	C
ATOM	8460	O ALA C 269	32.242	73.449	74.361	1.00	12.70	O
ATOM	8461	N HIS C 270	32.021	72.690	72.252	1.00	14.13	N
ATOM	8463	CA HIS C 270	33.442	72.440	72.035	1.00	14.56	C
ATOM	8465	CB HIS C 270	33.746	72.133	70.545	1.00	14.66	C
ATOM	8468	CG HIS C 270	35.204	71.893	70.277	1.00	16.74	C
ATOM	8469	ND1 HIS C 270	35.857	70.744	70.672	1.00	18.73	N
ATOM	8471	CE1 HIS C 270	37.138	70.828	70.359	1.00	18.04	C
ATOM	8473	NE2 HIS C 270	37.340	71.987	69.764	1.00	18.65	N
ATOM	8475	CD2 HIS C 270	36.150	72.677	69.707	1.00	18.49	C
ATOM	8477	C HIS C 270	34.244	73.635	72.510	1.00	14.41	C
ATOM	8478	O HIS C 270	35.193	73.499	73.258	1.00	13.94	O
ATOM	8479	N PHE C 271	33.821	74.814	72.077	1.00	15.11	N
ATOM	8481	CA PHE C 271	34.479	76.089	72.388	1.00	15.73	C
ATOM	8483	CB PHE C 271	33.773	77.198	71.613	1.00	15.88	C
ATOM	8486	CG PHE C 271	34.476	77.594	70.389	1.00	18.73	C
ATOM	8487	CD1 PHE C 271	34.874	76.651	69.473	1.00	20.86	C
ATOM	8489	CE1 PHE C 271	35.561	77.022	68.312	1.00	22.61	C
ATOM	8491	CZ PHE C 271	35.873	78.333	68.072	1.00	23.46	C

284

ATOM	8493	CE2 PHE C 271	35.490	79.302	68.989	1.00	25.08	C
ATOM	8495	CD2 PHE C 271	34.790	78.926	70.156	1.00	23.86	C
ATOM	8497	C PHE C 271	34.420	76.429	73.867	1.00	15.43	C
ATOM	8498	O PHE C 271	35.301	76.990	74.447	1.00	15.27	O
ATOM	8499	N THR C 272	33.291	76.111	74.431	1.00	16.05	N
ATOM	8501	CA THR C 272	32.954	76.322	75.815	1.00	16.18	C
ATOM	8503	CB THR C 272	31.435	75.945	75.906	1.00	16.24	C
ATOM	8505	OG1 THR C 272	30.662	77.093	76.260	1.00	18.44	O
ATOM	8507	CG2 THR C 272	31.115	74.947	76.905	1.00	15.83	C
ATOM	8511	C THR C 272	33.909	75.508	76.710	1.00	16.06	C
ATOM	8512	O THR C 272	34.369	75.986	77.742	1.00	16.06	O
ATOM	8513	N GLU C 273	34.270	74.312	76.256	1.00	16.17	N
ATOM	8515	CA GLU C 273	35.168	73.407	76.990	1.00	16.01	C
ATOM	8517	CB GLU C 273	34.916	71.944	76.588	1.00	15.86	C
ATOM	8520	CG GLU C 273	33.509	71.506	76.950	1.00	17.12	C
ATOM	8523	CD GLU C 273	33.053	70.237	76.278	1.00	18.83	C
ATOM	8524	OE1 GLU C 273	31.896	70.177	75.770	1.00	17.58	O
ATOM	8525	OE2 GLU C 273	33.854	69.289	76.311	1.00	23.37	O
ATOM	8526	C GLU C 273	36.627	73.783	76.788	1.00	15.47	C
ATOM	8527	O GLU C 273	37.434	73.573	77.662	1.00	15.17	O
ATOM	8528	N LEU C 274	36.971	74.355	75.650	1.00	15.35	N
ATOM	8530	CA LEU C 274	38.303	74.947	75.535	1.00	15.67	C
ATOM	8532	CB LEU C 274	38.675	75.292	74.069	1.00	15.77	C
ATOM	8535	CG LEU C 274	38.623	74.150	73.040	1.00	16.76	C
ATOM	8537	CD1 LEU C 274	39.106	74.592	71.689	1.00	15.92	C
ATOM	8541	CD2 LEU C 274	39.413	72.936	73.500	1.00	17.77	C
ATOM	8545	C LEU C 274	38.445	76.167	76.486	1.00	15.04	C
ATOM	8546	O LEU C 274	39.422	76.250	77.215	1.00	15.58	O
ATOM	8547	N ALA C 275	37.479	77.076	76.517	1.00	14.12	N
ATOM	8549	CA ALA C 275	37.538	78.172	77.473	1.00	14.24	C
ATOM	8551	CB ALA C 275	36.372	79.116	77.314	1.00	14.24	C
ATOM	8555	C ALA C 275	37.621	77.680	78.916	1.00	14.53	C
ATOM	8556	O ALA C 275	38.372	78.231	79.725	1.00	14.45	O
ATOM	8557	N ILE C 276	36.878	76.640	79.258	1.00	14.52	N
ATOM	8559	CA ILE C 276	37.017	76.125	80.613	1.00	14.89	C
ATOM	8561	CB ILE C 276	35.952	75.057	80.921	1.00	14.62	C
ATOM	8563	CG1 ILE C 276	34.659	75.745	81.324	1.00	14.39	C
ATOM	8566	CD1 ILE C 276	33.486	74.802	81.357	1.00	14.79	C
ATOM	8570	CG2 ILE C 276	36.378	74.145	82.042	1.00	15.05	C
ATOM	8574	C ILE C 276	38.472	75.648	80.894	1.00	15.15	C
ATOM	8575	O ILE C 276	39.021	75.983	81.938	1.00	15.88	O
ATOM	8576	N ILE C 277	39.105	74.917	79.986	1.00	14.95	N
ATOM	8578	CA ILE C 277	40.508	74.571	80.181	1.00	15.24	C
ATOM	8580	CB ILE C 277	41.068	73.786	78.980	1.00	15.29	C
ATOM	8582	CG1 ILE C 277	40.395	72.418	78.849	1.00	14.81	C
ATOM	8585	CD1 ILE C 277	40.549	71.790	77.473	1.00	14.39	C
ATOM	8589	CG2 ILE C 277	42.569	73.589	79.115	1.00	15.22	C
ATOM	8593	C ILE C 277	41.365	75.835	80.453	1.00	16.14	C

285

ATOM	8594	O	ILE C 277	42.272	75.817	81.306	1.00	15.48	O
ATOM	8595	N	SER C 278	41.081	76.937	79.763	1.00	17.05	N
ATOM	8597	CA	SER C 278	41.862	78.159	79.982	1.00	18.26	C
ATOM	8599	CB	SER C 278	41.579	79.195	78.913	1.00	18.25	C
ATOM	8602	OG	SER C 278	42.183	78.803	77.710	1.00	21.13	O
ATOM	8604	C	SER C 278	41.606	78.794	81.328	1.00	18.55	C
ATOM	8605	O	SER C 278	42.535	79.250	81.976	1.00	18.73	O
ATOM	8606	N	VAL C 279	40.337	78.854	81.717	1.00	19.13	N
ATOM	8608	CA	VAL C 279	39.946	79.399	82.996	1.00	19.38	C
ATOM	8610	CB	VAL C 279	38.422	79.263	83.218	1.00	19.63	C
ATOM	8612	CG1	VAL C 279	38.068	79.485	84.675	1.00	19.71	C
ATOM	8616	CG2	VAL C 279	37.673	80.259	82.351	1.00	19.37	C
ATOM	8620	C	VAL C 279	40.742	78.717	84.107	1.00	19.42	C
ATOM	8621	O	VAL C 279	41.283	79.385	84.977	1.00	18.84	O
ATOM	8622	N	GLN C 280	40.844	77.397	84.038	1.00	20.05	N
ATOM	8624	CA	GLN C 280	41.561	76.610	85.038	1.00	20.99	C
ATOM	8626	CB	GLN C 280	41.387	75.099	84.779	1.00	21.16	C
ATOM	8629	CG	GLN C 280	39.938	74.621	85.031	1.00	22.87	C
ATOM	8632	CD	GLN C 280	39.677	73.134	84.764	1.00	23.27	C
ATOM	8633	OE1	GLN C 280	40.022	72.595	83.702	1.00	23.04	O
ATOM	8634	NE2	GLN C 280	39.007	72.493	85.708	1.00	21.18	N
ATOM	8637	C	GLN C 280	43.028	76.992	85.069	1.00	21.43	C
ATOM	8638	O	GLN C 280	43.582	77.252	86.122	1.00	22.17	O
ATOM	8639	N	GLU C 281	43.648	77.043	83.906	1.00	21.62	N
ATOM	8641	CA	GLU C 281	45.040	77.401	83.811	1.00	22.14	C
ATOM	8643	CB	GLU C 281	45.458	77.362	82.350	1.00	22.58	C
ATOM	8646	CG	GLU C 281	45.460	75.961	81.784	1.00	23.93	C
ATOM	8649	CD	GLU C 281	46.005	75.892	80.377	1.00	25.78	C
ATOM	8650	OE1	GLU C 281	46.484	76.928	79.869	1.00	25.80	O
ATOM	8651	OE2	GLU C 281	45.953	74.781	79.794	1.00	28.08	O
ATOM	8652	C	GLU C 281	45.348	78.793	84.361	1.00	22.28	C
ATOM	8653	O	GLU C 281	46.351	79.012	85.047	1.00	22.14	O
ATOM	8654	N	ILE C 282	44.504	79.745	84.024	1.00	22.54	N
ATOM	8656	CA	ILE C 282	44.670	81.095	84.519	1.00	22.92	C
ATOM	8658	CB	ILE C 282	43.659	82.024	83.863	1.00	22.97	C
ATOM	8660	CG1	ILE C 282	43.989	82.210	82.383	1.00	23.12	C
ATOM	8663	CD1	ILE C 282	42.862	82.862	81.586	1.00	23.40	C
ATOM	8667	CG2	ILE C 282	43.652	83.368	84.588	1.00	24.23	C
ATOM	8671	C	ILE C 282	44.509	81.164	86.050	1.00	23.31	C
ATOM	8672	O	ILE C 282	45.172	81.981	86.687	1.00	24.19	O
ATOM	8673	N	VAL C 283	43.623	80.349	86.636	1.00	22.61	N
ATOM	8675	CA	VAL C 283	43.436	80.374	88.075	1.00	22.32	C
ATOM	8677	CB	VAL C 283	42.161	79.568	88.543	1.00	22.19	C
ATOM	8679	CG1	VAL C 283	42.222	79.274	90.040	1.00	21.88	C
ATOM	8683	CG2	VAL C 283	40.885	80.333	88.239	1.00	20.78	C
ATOM	8687	C	VAL C 283	44.711	79.834	88.757	1.00	22.63	C
ATOM	8688	O	VAL C 283	45.164	80.367	89.776	1.00	22.75	O
ATOM	8689	N	ASP C 284	45.279	78.771	88.202	1.00	22.59	N

286

ATOM	8691	CA	ASP C 284	46.484	78.174	88.761	1.00	22.78	C
ATOM	8693	CB	ASP C 284	46.843	76.887	88.033	1.00	23.50	C
ATOM	8696	CG	ASP C 284	45.915	75.767	88.355	1.00	25.75	C
ATOM	8697	OD1	ASP C 284	45.928	74.776	87.589	1.00	30.52	O
ATOM	8698	OD2	ASP C 284	45.144	75.788	89.345	1.00	29.12	O
ATOM	8699	C	ASP C 284	47.634	79.119	88.620	1.00	22.09	C
ATOM	8700	O	ASP C 284	48.455	79.250	89.520	1.00	22.04	O
ATOM	8701	N	PHE C 285	47.697	79.781	87.473	1.00	21.76	N
ATOM	8703	CA	PHE C 285	48.791	80.695	87.216	1.00	21.35	C
ATOM	8705	CB	PHE C 285	48.822	81.161	85.760	1.00	20.96	C
ATOM	8708	CG	PHE C 285	49.906	82.156	85.483	1.00	20.14	C
ATOM	8709	CD1	PHE C 285	51.211	81.785	85.451	1.00	20.14	C
ATOM	8711	CE1	PHE C 285	52.190	82.731	85.214	1.00	19.57	C
ATOM	8713	CZ	PHE C 285	51.880	84.028	85.036	1.00	17.52	C
ATOM	8715	CE2	PHE C 285	50.621	84.408	85.070	1.00	20.11	C
ATOM	8717	CD2	PHE C 285	49.618	83.478	85.296	1.00	21.14	C
ATOM	8719	C	PHE C 285	48.748	81.873	88.208	1.00	21.51	C
ATOM	8720	O	PHE C 285	49.776	82.187	88.819	1.00	21.70	O
ATOM	8721	N	ALA C 286	47.573	82.476	88.411	1.00	21.08	N
ATOM	8723	CA	ALA C 286	47.447	83.633	89.303	1.00	21.05	C
ATOM	8725	CB	ALA C 286	46.036	84.111	89.347	1.00	20.86	C
ATOM	8729	C	ALA C 286	47.933	83.331	90.717	1.00	21.37	C
ATOM	8730	O	ALA C 286	48.581	84.183	91.346	1.00	20.40	O
ATOM	8731	N	LYS C 287	47.632	82.108	91.181	1.00	21.89	N
ATOM	8733	CA	LYS C 287	48.037	81.617	92.494	1.00	22.91	C
ATOM	8735	CB	LYS C 287	47.450	80.200	92.767	1.00	24.20	C
ATOM	8738	CG	LYS C 287	45.998	80.062	93.408	1.00	28.09	C
ATOM	8741	CD	LYS C 287	45.073	81.324	93.216	1.00	33.90	C
ATOM	8744	CE	LYS C 287	43.517	81.009	93.140	1.00	36.88	C
ATOM	8747	NZ	LYS C 287	42.894	80.562	94.443	1.00	36.46	N
ATOM	8751	C	LYS C 287	49.568	81.580	92.624	1.00	22.37	C
ATOM	8752	O	LYS C 287	50.078	81.671	93.730	1.00	22.07	O
ATOM	8753	N	GLN C 288	50.289	81.419	91.507	1.00	22.16	N
ATOM	8755	CA	GLN C 288	51.767	81.415	91.511	1.00	22.02	C
ATOM	8757	CB	GLN C 288	52.344	80.364	90.525	1.00	22.35	C
ATOM	8760	CG	GLN C 288	52.179	78.882	90.981	1.00	24.94	C
ATOM	8763	CD	GLN C 288	53.223	78.394	92.061	1.00	29.71	C
ATOM	8764	OE1	GLN C 288	53.582	79.133	93.000	1.00	33.10	O
ATOM	8765	NE2	GLN C 288	53.689	77.148	91.914	1.00	30.72	N
ATOM	8768	C	GLN C 288	52.403	82.787	91.271	1.00	20.81	C
ATOM	8769	O	GLN C 288	53.608	82.910	91.281	1.00	20.00	O
ATOM	8770	N	VAL C 289	51.595	83.814	91.054	1.00	20.62	N
ATOM	8772	CA	VAL C 289	52.101	85.189	90.927	1.00	20.38	C
ATOM	8774	CB	VAL C 289	51.119	86.084	90.141	1.00	20.08	C
ATOM	8776	CG1	VAL C 289	51.611	87.489	90.103	1.00	20.13	C
ATOM	8780	CG2	VAL C 289	50.922	85.567	88.728	1.00	19.83	C
ATOM	8784	C	VAL C 289	52.285	85.775	92.337	1.00	20.40	C
ATOM	8785	O	VAL C 289	51.306	85.863	93.089	1.00	20.53	O

287

ATOM	8786	N	PRO C 290	53.508	86.160	92.722	1.00	20.04	N
ATOM	8787	CA	PRO C 290	53.716	86.672	94.083	1.00	19.48	C
ATOM	8789	CB	PRO C 290	55.193	87.062	94.105	1.00	19.41	C
ATOM	8792	CG	PRO C 290	55.833	86.367	92.956	1.00	19.42	C
ATOM	8795	CD	PRO C 290	54.763	86.136	91.944	1.00	19.87	C
ATOM	8798	C	PRO C 290	52.819	87.879	94.342	1.00	19.25	C
ATOM	8799	O	PRO C 290	52.659	88.740	93.473	1.00	18.38	O
ATOM	8800	N	GLY C 291	52.218	87.919	95.525	1.00	19.53	N
ATOM	8802	CA	GLY C 291	51.323	89.009	95.886	1.00	19.72	C
ATOM	8805	C	GLY C 291	49.852	88.656	95.740	1.00	20.00	C
ATOM	8806	O	GLY C 291	49.038	89.109	96.516	1.00	19.68	O
ATOM	8807	N	PHE C 292	49.511	87.845	94.738	1.00	20.11	N
ATOM	8809	CA	PHE C 292	48.134	87.538	94.451	1.00	19.77	C
ATOM	8811	CB	PHE C 292	48.020	86.597	93.250	1.00	19.74	C
ATOM	8814	CG	PHE C 292	46.603	86.360	92.821	1.00	18.39	C
ATOM	8815	CD1	PHE C 292	45.900	87.341	92.157	1.00	17.92	C
ATOM	8817	CE1	PHE C 292	44.579	87.142	91.817	1.00	17.58	C
ATOM	8819	CZ	PHE C 292	43.960	85.950	92.128	1.00	16.95	C
ATOM	8821	CE2	PHE C 292	44.657	84.976	92.776	1.00	15.96	C
ATOM	8823	CD2	PHE C 292	45.957	85.189	93.145	1.00	16.46	C
ATOM	8825	C	PHE C 292	47.458	86.946	95.661	1.00	20.36	C
ATOM	8826	O	PHE C 292	46.442	87.449	96.083	1.00	20.37	O
ATOM	8827	N	LEU C 293	48.026	85.891	96.234	1.00	21.32	N
ATOM	8829	CA	LEU C 293	47.397	85.212	97.373	1.00	21.95	C
ATOM	8831	CB	LEU C 293	47.998	83.815	97.597	1.00	21.81	C
ATOM	8834	CG	LEU C 293	47.667	82.680	96.614	1.00	21.20	C
ATOM	8836	CD1	LEU C 293	48.479	81.475	96.968	1.00	21.14	C
ATOM	8840	CD2	LEU C 293	46.203	82.287	96.583	1.00	21.07	C
ATOM	8844	C	LEU C 293	47.476	86.023	98.671	1.00	23.07	C
ATOM	8845	O	LEU C 293	46.901	85.605	99.690	1.00	23.23	O
ATOM	8846	N	GLN C 294	48.204	87.149	98.633	1.00	24.35	N
ATOM	8848	CA	GLN C 294	48.249	88.137	99.730	1.00	25.42	C
ATOM	8850	CB	GLN C 294	49.418	89.148	99.588	1.00	26.23	C
ATOM	8853	CG	GLN C 294	50.695	88.853	100.392	1.00	29.60	C
ATOM	8856	CD	GLN C 294	51.547	87.742	99.774	1.00	35.06	C
ATOM	8857	OE1	GLN C 294	52.159	87.936	98.705	1.00	38.85	O
ATOM	8858	NE2	GLN C 294	51.576	86.564	100.433	1.00	36.90	N
ATOM	8861	C	GLN C 294	46.944	88.916	99.799	1.00	24.88	C
ATOM	8862	O	GLN C 294	46.451	89.156	100.878	1.00	25.51	O
ATOM	8863	N	LEU C 295	46.407	89.322	98.651	1.00	24.46	N
ATOM	8865	CA	LEU C 295	45.109	89.987	98.571	1.00	24.18	C
ATOM	8867	CB	LEU C 295	44.701	90.228	97.101	1.00	24.14	C
ATOM	8870	CG	LEU C 295	45.531	91.273	96.334	1.00	25.01	C
ATOM	8872	CD1	LEU C 295	45.279	91.235	94.831	1.00	25.31	C
ATOM	8876	CD2	LEU C 295	45.272	92.690	96.830	1.00	26.82	C
ATOM	8880	C	LEU C 295	44.077	89.103	99.232	1.00	23.84	C
ATOM	8881	O	LEU C 295	44.241	87.900	99.255	1.00	23.57	O
ATOM	8882	N	GLY C 296	43.014	89.692	99.766	1.00	23.81	N

288

ATOM	8884	CA	GLY C 296	41.932	88.918	100.359	1.00	24.24	C
ATOM	8887	C	GLY C 296	41.176	88.180	99.282	1.00	24.60	C
ATOM	8888	O	GLY C 296	41.317	88.516	98.141	1.00	25.20	O
ATOM	8889	N	ARG C 297	40.382	87.178	99.616	1.00	25.29	N
ATOM	8891	CA	ARG C 297	39.701	86.402	98.580	1.00	25.96	C
ATOM	8893	CB	ARG C 297	38.886	85.236	99.167	1.00	26.96	C
ATOM	8896	CG	ARG C 297	38.658	84.012	98.216	1.00	30.64	C
ATOM	8899	CD	ARG C 297	38.116	82.739	98.985	1.00	36.42	C
ATOM	8902	NE	ARG C 297	37.400	81.748	98.153	1.00	40.44	N
ATOM	8904	CZ	ARG C 297	36.145	81.884	97.675	1.00	43.02	C
ATOM	8905	NH1	ARG C 297	35.423	82.984	97.920	1.00	43.84	N
ATOM	8908	NH2	ARG C 297	35.607	80.911	96.939	1.00	43.40	N
ATOM	8911	C	ARG C 297	38.793	87.275	97.737	1.00	25.23	C
ATOM	8912	O	ARG C 297	38.711	87.058	96.533	1.00	25.49	O
ATOM	8913	N	GLU C 298	38.109	88.252	98.332	1.00	24.35	N
ATOM	8915	CA	GLU C 298	37.149	89.043	97.548	1.00	23.70	C
ATOM	8917	CB	GLU C 298	36.478	90.111	98.404	1.00	23.99	C
ATOM	8920	CG	GLU C 298	35.483	89.554	99.418	1.00	26.24	C
ATOM	8923	CD	GLU C 298	36.128	89.176	100.739	1.00	29.32	C
ATOM	8924	OE1	GLU C 298	37.249	89.667	100.996	1.00	30.46	O
ATOM	8925	OE2	GLU C 298	35.521	88.387	101.518	1.00	31.60	O
ATOM	8926	C	GLU C 298	37.843	89.675	96.329	1.00	22.40	C
ATOM	8927	O	GLU C 298	37.306	89.686	95.224	1.00	21.30	O
ATOM	8928	N	ASP C 299	39.059	90.158	96.551	1.00	21.45	N
ATOM	8930	CA	ASP C 299	39.857	90.796	95.517	1.00	21.01	C
ATOM	8932	CB	ASP C 299	40.911	91.725	96.130	1.00	20.70	C
ATOM	8935	CG	ASP C 299	40.315	93.056	96.599	1.00	21.37	C
ATOM	8936	OD1	ASP C 299	39.244	93.430	96.077	1.00	21.01	O
ATOM	8937	OD2	ASP C 299	40.827	93.789	97.487	1.00	22.23	O
ATOM	8938	C	ASP C 299	40.497	89.803	94.561	1.00	20.83	C
ATOM	8939	O	ASP C 299	40.613	90.085	93.372	1.00	21.04	O
ATOM	8940	N	GLN C 300	40.904	88.648	95.055	1.00	20.50	N
ATOM	8942	CA	GLN C 300	41.388	87.596	94.176	1.00	20.66	C
ATOM	8944	CB	GLN C 300	41.731	86.315	94.970	1.00	20.16	C
ATOM	8947	CG	GLN C 300	42.991	86.449	95.870	1.00	18.84	C
ATOM	8950	CD	GLN C 300	43.195	85.243	96.745	1.00	16.77	C
ATOM	8951	OE1	GLN C 300	43.030	84.136	96.271	1.00	18.45	O
ATOM	8952	NE2	GLN C 300	43.543	85.442	98.014	1.00	13.14	N
ATOM	8955	C	GLN C 300	40.331	87.313	93.094	1.00	21.42	C
ATOM	8956	O	GLN C 300	40.639	87.268	91.886	1.00	21.43	O
ATOM	8957	N	ILE C 301	39.090	87.163	93.540	1.00	21.90	N
ATOM	8959	CA	ILE C 301	37.971	86.851	92.662	1.00	22.51	C
ATOM	8961	CB	ILE C 301	36.708	86.448	93.504	1.00	22.67	C
ATOM	8963	CG1	ILE C 301	36.953	85.082	94.166	1.00	22.78	C
ATOM	8966	CD1	ILE C 301	36.086	84.819	95.338	1.00	22.78	C
ATOM	8970	CG2	ILE C 301	35.434	86.413	92.646	1.00	21.69	C
ATOM	8974	C	ILE C 301	37.654	87.973	91.670	1.00	22.92	C
ATOM	8975	O	ILE C 301	37.496	87.704	90.483	1.00	23.46	O

289

ATOM	8976	N	ALA C 302	37.567	89.213	92.136	1.00	23.44	N
ATOM	8978	CA	ALA C 302	37.297	90.358	91.248	1.00	23.74	C
ATOM	8980	CB	ALA C 302	37.138	91.667	92.071	1.00	23.62	C
ATOM	8984	C	ALA C 302	38.393	90.525	90.165	1.00	24.17	C
ATOM	8985	O	ALA C 302	38.090	90.652	88.972	1.00	24.10	O
ATOM	8986	N	LEU C 303	39.664	90.517	90.589	1.00	24.48	N
ATOM	8988	CA	LEU C 303	40.801	90.572	89.664	1.00	24.40	C
ATOM	8990	CB	LEU C 303	42.128	90.542	90.432	1.00	23.92	C
ATOM	8993	CG	LEU C 303	42.414	91.805	91.252	1.00	24.25	C
ATOM	8995	CD1	LEU C 303	43.847	91.835	91.698	1.00	24.50	C
ATOM	8999	CD2	LEU C 303	42.082	93.091	90.497	1.00	24.83	C
ATOM	9003	C	LEU C 303	40.764	89.470	88.593	1.00	24.94	C
ATOM	9004	O	LEU C 303	40.794	89.757	87.414	1.00	25.28	O
ATOM	9005	N	LEU C 304	40.683	88.216	88.989	1.00	25.46	N
ATOM	9007	CA	LEU C 304	40.559	87.137	88.007	1.00	26.09	C
ATOM	9009	CB	LEU C 304	40.622	85.767	88.704	1.00	26.51	C
ATOM	9012	CG	LEU C 304	42.003	85.320	89.130	1.00	27.18	C
ATOM	9014	CD1	LEU C 304	41.980	83.863	89.418	1.00	28.09	C
ATOM	9018	CD2	LEU C 304	43.012	85.629	88.029	1.00	29.72	C
ATOM	9022	C	LEU C 304	39.281	87.195	87.177	1.00	25.82	C
ATOM	9023	O	LEU C 304	39.242	86.775	86.013	1.00	25.58	O
ATOM	9024	N	LYS C 305	38.218	87.696	87.761	1.00	25.64	N
ATOM	9026	CA	LYS C 305	36.981	87.715	87.005	1.00	26.29	C
ATOM	9028	CB	LYS C 305	35.813	88.203	87.881	1.00	26.84	C
ATOM	9031	CG	LYS C 305	34.439	87.892	87.295	1.00	30.10	C
ATOM	9034	CD	LYS C 305	33.308	88.353	88.246	1.00	34.41	C
ATOM	9037	CE	LYS C 305	31.984	88.662	87.500	1.00	35.16	C
ATOM	9040	NZ	LYS C 305	30.803	88.364	88.382	1.00	36.56	N
ATOM	9044	C	LYS C 305	37.182	88.593	85.752	1.00	25.12	C
ATOM	9045	O	LYS C 305	36.856	88.214	84.648	1.00	23.92	O
ATOM	9046	N	ALA C 306	37.767	89.761	85.964	1.00	24.83	N
ATOM	9048	CA	ALA C 306	37.904	90.763	84.933	1.00	24.69	C
ATOM	9050	CB	ALA C 306	38.142	92.079	85.587	1.00	24.53	C
ATOM	9054	C	ALA C 306	39.054	90.419	83.971	1.00	24.75	C
ATOM	9055	O	ALA C 306	38.947	90.612	82.759	1.00	24.53	O
ATOM	9056	N	SER C 307	40.132	89.891	84.536	1.00	24.19	N
ATOM	9058	CA	SER C 307	41.307	89.510	83.797	1.00	24.60	C
ATOM	9060	CB	SER C 307	42.416	89.097	84.766	1.00	24.97	C
ATOM	9063	OG	SER C 307	43.144	90.243	85.182	1.00	29.53	O
ATOM	9065	C	SER C 307	41.142	88.334	82.868	1.00	24.11	C
ATOM	9066	O	SER C 307	41.913	88.210	81.904	1.00	24.50	O
ATOM	9067	N	THR C 308	40.216	87.428	83.179	1.00	22.90	N
ATOM	9069	CA	THR C 308	40.264	86.105	82.578	1.00	22.16	C
ATOM	9071	CB	THR C 308	39.182	85.214	83.140	1.00	22.11	C
ATOM	9073	OG1	THR C 308	39.520	84.866	84.471	1.00	22.43	O
ATOM	9075	CG2	THR C 308	39.183	83.857	82.474	1.00	22.57	C
ATOM	9079	C	THR C 308	40.153	86.169	81.076	1.00	21.89	C
ATOM	9080	O	THR C 308	40.914	85.513	80.355	1.00	21.92	O

290

ATOM	9081	N	ILE C 309	39.208	86.954	80.592	1.00	21.40	N
ATOM	9083	CA	ILE C 309	39.023	87.048	79.154	1.00	21.25	C
ATOM	9085	CB	ILE C 309	37.712	87.774	78.822	1.00	20.90	C
ATOM	9087	CG1	ILE C 309	37.416	87.631	77.344	1.00	20.93	C
ATOM	9090	CD1	ILE C 309	37.472	86.250	76.858	1.00	21.61	C
ATOM	9094	CG2	ILE C 309	37.762	89.254	79.214	1.00	20.66	C
ATOM	9098	C	ILE C 309	40.213	87.720	78.474	1.00	21.81	C
ATOM	9099	O	ILE C 309	40.563	87.401	77.336	1.00	22.57	O
ATOM	9100	N	GLU C 310	40.818	88.682	79.166	1.00	21.86	N
ATOM	9102	CA	GLU C 310	41.905	89.450	78.600	1.00	20.98	C
ATOM	9104	CB	GLU C 310	42.221	90.682	79.447	1.00	20.83	C
ATOM	9107	CG	GLU C 310	41.015	91.617	79.538	1.00	20.94	C
ATOM	9110	CD	GLU C 310	41.296	92.901	80.275	1.00	20.86	C
ATOM	9111	OE1	GLU C 310	42.476	93.127	80.564	1.00	21.98	O
ATOM	9112	OE2	GLU C 310	40.343	93.668	80.573	1.00	19.88	O
ATOM	9113	C	GLU C 310	43.058	88.523	78.491	1.00	20.63	C
ATOM	9114	O	GLU C 310	43.712	88.509	77.469	1.00	21.17	O
ATOM	9115	N	ILE C 311	43.290	87.699	79.500	1.00	20.65	N
ATOM	9117	CA	ILE C 311	44.471	86.830	79.474	1.00	20.84	C
ATOM	9119	CB	ILE C 311	44.759	86.187	80.846	1.00	21.33	C
ATOM	9121	CG1	ILE C 311	45.413	87.194	81.797	1.00	21.11	C
ATOM	9124	CD1	ILE C 311	45.275	86.773	83.279	1.00	21.03	C
ATOM	9128	CG2	ILE C 311	45.691	84.973	80.742	1.00	22.06	C
ATOM	9132	C	ILE C 311	44.287	85.782	78.404	1.00	21.02	C
ATOM	9133	O	ILE C 311	45.278	85.423	77.777	1.00	21.65	O
ATOM	9134	N	MET C 312	43.045	85.319	78.164	1.00	20.81	N
ATOM	9136	CA	MET C 312	42.738	84.365	77.068	1.00	20.33	C
ATOM	9138	CB	MET C 312	41.282	83.934	77.084	1.00	20.38	C
ATOM	9141	CG	MET C 312	40.907	83.010	78.244	1.00	22.03	C
ATOM	9144	SD	MET C 312	39.130	82.820	78.407	1.00	23.29	S
ATOM	9145	CE	MET C 312	39.092	81.695	79.650	1.00	26.02	C
ATOM	9149	C	MET C 312	43.004	84.975	75.707	1.00	20.48	C
ATOM	9150	O	MET C 312	43.417	84.277	74.774	1.00	20.46	O
ATOM	9151	N	LEU C 313	42.761	86.288	75.588	1.00	20.32	N
ATOM	9153	CA	LEU C 313	43.016	87.002	74.349	1.00	19.95	C
ATOM	9155	CB	LEU C 313	42.349	88.349	74.395	1.00	19.65	C
ATOM	9158	CG	LEU C 313	40.838	88.317	74.231	1.00	20.60	C
ATOM	9160	CD1	LEU C 313	40.323	89.657	74.601	1.00	22.49	C
ATOM	9164	CD2	LEU C 313	40.421	88.043	72.809	1.00	22.11	C
ATOM	9168	C	LEU C 313	44.517	87.114	74.062	1.00	20.48	C
ATOM	9169	O	LEU C 313	44.970	86.986	72.910	1.00	19.41	O
ATOM	9170	N	LEU C 314	45.285	87.350	75.119	1.00	21.36	N
ATOM	9172	CA	LEU C 314	46.742	87.304	75.031	1.00	22.27	C
ATOM	9174	CB	LEU C 314	47.378	87.756	76.341	1.00	22.10	C
ATOM	9177	CG	LEU C 314	48.051	89.097	76.593	1.00	22.13	C
ATOM	9179	CD1	LEU C 314	47.813	90.060	75.558	1.00	23.29	C
ATOM	9183	CD2	LEU C 314	47.573	89.669	77.902	1.00	23.63	C
ATOM	9187	C	LEU C 314	47.219	85.871	74.675	1.00	23.00	C

291

ATOM	9188	O	LEU C 314	47.987	85.708	73.731	1.00	23.62	O
ATOM	9189	N	GLU C 315	46.781	84.842	75.403	1.00	23.38	N
ATOM	9191	CA	GLU C 315	47.194	83.441	75.088	1.00	23.93	C
ATOM	9193	CB	GLU C 315	46.679	82.410	76.120	1.00	24.28	C
ATOM	9196	CG	GLU C 315	47.382	82.504	77.476	1.00	27.22	C
ATOM	9199	CD	GLU C 315	48.870	82.108	77.415	1.00	30.37	C
ATOM	9200	OE1	GLU C 315	49.186	81.092	76.775	1.00	32.39	O
ATOM	9201	OE2	GLU C 315	49.728	82.806	77.994	1.00	31.87	O
ATOM	9202	C	GLU C 315	46.745	83.017	73.700	1.00	23.07	C
ATOM	9203	O	GLU C 315	47.485	82.353	73.000	1.00	23.02	O
ATOM	9204	N	THR C 316	45.539	83.428	73.307	1.00	22.38	N
ATOM	9206	CA	THR C 316	45.020	83.212	71.946	1.00	21.67	C
ATOM	9208	CB	THR C 316	43.589	83.855	71.857	1.00	21.88	C
ATOM	9210	OG1	THR C 316	42.615	83.046	72.539	1.00	20.43	O
ATOM	9212	CG2	THR C 316	43.091	83.941	70.394	1.00	22.37	C
ATOM	9216	C	THR C 316	45.982	83.859	70.889	1.00	20.90	C
ATOM	9217	O	THR C 316	46.480	83.209	69.976	1.00	19.95	O
ATOM	9218	N	ALA C 317	46.228	85.148	71.048	1.00	20.05	N
ATOM	9220	CA	ALA C 317	47.092	85.868	70.168	1.00	20.00	C
ATOM	9222	CB	ALA C 317	47.249	87.275	70.678	1.00	20.45	C
ATOM	9226	C	ALA C 317	48.438	85.175	70.092	1.00	20.26	C
ATOM	9227	O	ALA C 317	48.931	84.875	69.034	1.00	19.99	O
ATOM	9228	N	ARG C 318	49.031	84.887	71.230	1.00	21.12	N
ATOM	9230	CA	ARG C 318	50.324	84.186	71.273	1.00	21.70	C
ATOM	9232	CB	ARG C 318	50.663	83.913	72.735	1.00	22.23	C
ATOM	9235	CG	ARG C 318	51.943	83.198	73.021	1.00	24.76	C
ATOM	9238	CD	ARG C 318	51.980	82.735	74.441	1.00	29.47	C
ATOM	9241	NE	ARG C 318	53.328	82.767	74.979	1.00	34.52	N
ATOM	9243	CZ	ARG C 318	53.625	83.006	76.263	1.00	38.26	C
ATOM	9244	NH1	ARG C 318	52.668	83.248	77.171	1.00	39.13	N
ATOM	9247	NH2	ARG C 318	54.896	82.994	76.643	1.00	39.06	N
ATOM	9250	C	ARG C 318	50.366	82.877	70.481	1.00	20.96	C
ATOM	9251	O	ARG C 318	51.422	82.466	70.056	1.00	20.67	O
ATOM	9252	N	ARG C 319	49.225	82.218	70.325	1.00	21.00	N
ATOM	9254	CA	ARG C 319	49.137	80.935	69.613	1.00	21.52	C
ATOM	9256	CB	ARG C 319	48.157	80.009	70.347	1.00	22.53	C
ATOM	9259	CG	ARG C 319	48.761	79.186	71.485	1.00	25.78	C
ATOM	9262	CD	ARG C 319	47.747	78.810	72.591	1.00	30.60	C
ATOM	9265	NE	ARG C 319	48.453	78.230	73.736	1.00	34.90	N
ATOM	9267	CZ	ARG C 319	49.208	78.920	74.610	1.00	36.03	C
ATOM	9268	NH1	ARG C 319	49.361	80.244	74.516	1.00	35.20	N
ATOM	9271	NH2	ARG C 319	49.813	78.268	75.594	1.00	36.20	N
ATOM	9274	C	ARG C 319	48.661	81.085	68.167	1.00	20.46	C
ATOM	9275	O	ARG C 319	48.460	80.095	67.474	1.00	19.77	O
ATOM	9276	N	TYR C 320	48.473	82.329	67.738	1.00	19.64	N
ATOM	9278	CA	TYR C 320	48.007	82.639	66.402	1.00	19.22	C
ATOM	9280	CB	TYR C 320	47.636	84.135	66.256	1.00	19.39	C
ATOM	9283	CG	TYR C 320	47.295	84.550	64.831	1.00	18.42	C

292

ATOM	9284	CD1 TYR C 320	46.083	84.202	64.253	1.00	17.75	C
ATOM	9286	CE1 TYR C 320	45.786	84.575	62.960	1.00	17.76	C
ATOM	9288	CZ TYR C 320	46.711	85.296	62.216	1.00	17.42	C
ATOM	9289	OH TYR C 320	46.429	85.661	60.914	1.00	19.24	O
ATOM	9291	CE2 TYR C 320	47.910	85.644	62.766	1.00	16.45	C
ATOM	9293	CD2 TYR C 320	48.196	85.271	64.064	1.00	17.01	C
ATOM	9295	C TYR C 320	49.054	82.281	65.377	1.00	18.95	C
ATOM	9296	O TYR C 320	50.175	82.733	65.450	1.00	18.89	O
ATOM	9297	N ASN C 321	48.659	81.474	64.407	1.00	18.89	N
ATOM	9299	CA ASN C 321	49.521	81.088	63.325	1.00	18.85	C
ATOM	9301	CB ASN C 321	49.367	79.594	63.116	1.00	19.14	C
ATOM	9304	CG ASN C 321	50.275	79.065	62.041	1.00	19.83	C
ATOM	9305	OD1 ASN C 321	51.307	78.491	62.336	1.00	23.90	O
ATOM	9306	ND2 ASN C 321	49.897	79.252	60.794	1.00	18.73	N
ATOM	9309	C ASN C 321	49.134	81.863	62.063	1.00	18.64	C
ATOM	9310	O ASN C 321	48.022	81.690	61.541	1.00	18.17	O
ATOM	9311	N HIS C 322	50.039	82.715	61.567	1.00	18.15	N
ATOM	9313	CA HIS C 322	49.694	83.563	60.428	1.00	17.63	C
ATOM	9315	CB HIS C 322	50.420	84.917	60.431	1.00	17.80	C
ATOM	9318	CG HIS C 322	49.822	85.919	59.480	1.00	18.50	C
ATOM	9319	ND1 HIS C 322	48.561	86.452	59.653	1.00	18.45	N
ATOM	9321	CE1 HIS C 322	48.288	87.275	58.656	1.00	17.20	C
ATOM	9323	NE2 HIS C 322	49.318	87.283	57.829	1.00	17.99	N
ATOM	9325	CD2 HIS C 322	50.290	86.441	58.318	1.00	18.66	C
ATOM	9327	C HIS C 322	49.871	82.858	59.102	1.00	16.73	C
ATOM	9328	O HIS C 322	49.287	83.293	58.124	1.00	16.50	O
ATOM	9329	N GLU C 323	50.631	81.765	59.047	1.00	16.36	N
ATOM	9331	CA GLU C 323	50.675	80.947	57.814	1.00	15.96	C
ATOM	9333	CB GLU C 323	51.686	79.810	57.935	1.00	16.08	C
ATOM	9336	CG GLU C 323	51.782	78.979	56.657	1.00	18.17	C
ATOM	9339	CD GLU C 323	52.870	77.917	56.678	1.00	19.03	C
ATOM	9340	OE1 GLU C 323	53.586	77.808	57.690	1.00	20.63	O
ATOM	9341	OE2 GLU C 323	52.994	77.177	55.683	1.00	18.53	O
ATOM	9342	C GLU C 323	49.284	80.384	57.421	1.00	15.03	C
ATOM	9343	O GLU C 323	48.955	80.296	56.247	1.00	13.86	O
ATOM	9344	N THR C 324	48.483	80.055	58.431	1.00	14.77	N
ATOM	9346	CA THR C 324	47.185	79.393	58.285	1.00	14.57	C
ATOM	9348	CB THR C 324	47.160	78.062	59.140	1.00	15.16	C
ATOM	9350	OG1 THR C 324	47.434	78.329	60.540	1.00	14.64	O
ATOM	9352	CG2 THR C 324	48.246	77.040	58.670	1.00	13.97	C
ATOM	9356	C THR C 324	46.002	80.275	58.706	1.00	14.25	C
ATOM	9357	O THR C 324	44.857	79.920	58.490	1.00	13.36	O
ATOM	9358	N GLU C 325	46.303	81.424	59.314	1.00	14.85	N
ATOM	9360	CA GLU C 325	45.313	82.384	59.849	1.00	14.59	C
ATOM	9362	CB GLU C 325	44.601	83.107	58.716	1.00	14.04	C
ATOM	9365	CG GLU C 325	45.546	84.001	57.941	1.00	12.44	C
ATOM	9368	CD GLU C 325	44.904	84.690	56.756	1.00	11.07	C
ATOM	9369	OE1 GLU C 325	43.662	84.777	56.678	1.00	10.49	O

293

ATOM	9370	OE2	GLU C 325	45.663	85.167	55.899	1.00	9.70	O
ATOM	9371	C	GLU C 325	44.348	81.710	60.820	1.00	15.35	C
ATOM	9372	O	GLU C 325	43.140	81.847	60.734	1.00	15.10	O
ATOM	9373	N	CYS C 326	44.942	80.990	61.760	1.00	16.63	N
ATOM	9375	CA	CYS C 326	44.243	80.114	62.664	1.00	17.79	C
ATOM	9377	CB	CYS C 326	44.515	78.680	62.252	1.00	17.93	C
ATOM	9380	SG	CYS C 326	43.326	78.130	61.051	1.00	17.07	S
ATOM	9381	C	CYS C 326	44.775	80.287	64.047	1.00	19.77	C
ATOM	9382	O	CYS C 326	45.980	80.432	64.235	1.00	19.66	O
ATOM	9383	N	ILE C 327	43.882	80.248	65.025	1.00	22.43	N
ATOM	9385	CA	ILE C 327	44.283	80.131	66.423	1.00	24.44	C
ATOM	9387	CB	ILE C 327	43.214	80.733	67.310	1.00	24.68	C
ATOM	9389	CG1	ILE C 327	43.197	82.250	67.068	1.00	24.44	C
ATOM	9392	CD1	ILE C 327	41.889	82.845	67.350	1.00	25.51	C
ATOM	9396	CG2	ILE C 327	43.473	80.370	68.786	1.00	25.12	C
ATOM	9400	C	ILE C 327	44.547	78.676	66.782	1.00	26.15	C
ATOM	9401	O	ILE C 327	43.727	77.792	66.522	1.00	25.84	O
ATOM	9402	N	THR C 328	45.700	78.436	67.383	1.00	28.62	N
ATOM	9404	CA	THR C 328	46.125	77.075	67.670	1.00	30.85	C
ATOM	9406	CB	THR C 328	47.472	76.849	67.056	1.00	30.89	C
ATOM	9408	OG1	THR C 328	47.390	77.153	65.659	1.00	31.59	O
ATOM	9410	CG2	THR C 328	47.844	75.354	67.117	1.00	32.19	C
ATOM	9414	C	THR C 328	46.170	76.770	69.161	1.00	32.50	C
ATOM	9415	O	THR C 328	47.248	76.735	69.753	1.00	32.90	O
ATOM	9416	N	PHE C 329	44.985	76.564	69.744	1.00	34.40	N
ATOM	9418	CA	PHE C 329	44.814	76.137	71.136	1.00	35.56	C
ATOM	9420	CB	PHE C 329	43.352	75.806	71.391	1.00	35.71	C
ATOM	9423	CG	PHE C 329	42.971	75.773	72.846	1.00	37.29	C
ATOM	9424	CD1	PHE C 329	42.570	76.962	73.507	1.00	37.15	C
ATOM	9426	CE1	PHE C 329	42.181	76.942	74.852	1.00	36.69	C
ATOM	9428	CZ	PHE C 329	42.198	75.713	75.564	1.00	38.22	C
ATOM	9430	CE2	PHE C 329	42.591	74.497	74.899	1.00	37.78	C
ATOM	9432	CD2	PHE C 329	42.963	74.542	73.552	1.00	37.96	C
ATOM	9434	C	PHE C 329	45.677	74.915	71.484	1.00	36.59	C
ATOM	9435	O	PHE C 329	46.287	74.893	72.570	1.00	37.17	O
ATOM	9436	N	LEU C 330	45.742	73.920	70.582	1.00	37.22	N
ATOM	9438	CA	LEU C 330	46.641	72.740	70.750	1.00	37.98	C
ATOM	9440	CB	LEU C 330	45.912	71.602	71.491	1.00	38.39	C
ATOM	9443	CG	LEU C 330	46.350	71.300	72.931	1.00	40.08	C
ATOM	9445	CD1	LEU C 330	46.032	69.817	73.265	1.00	41.39	C
ATOM	9449	CD2	LEU C 330	47.845	71.598	73.186	1.00	40.84	C
ATOM	9453	C	LEU C 330	47.203	72.192	69.425	1.00	37.69	C
ATOM	9454	O	LEU C 330	46.727	72.554	68.360	1.00	38.18	O
ATOM	9455	N	LYS C 331	48.196	71.315	69.475	1.00	37.13	N
ATOM	9457	CA	LYS C 331	48.858	70.907	68.239	1.00	37.33	C
ATOM	9459	CB	LYS C 331	49.680	69.630	68.419	1.00	37.85	C
ATOM	9462	CG	LYS C 331	50.896	69.819	69.341	1.00	40.26	C
ATOM	9465	CD	LYS C 331	51.977	68.724	69.159	1.00	41.77	C

294

ATOM	9468	CE	LYS	C	331	53.197	69.011	70.047	1.00	42.34	C
ATOM	9471	NZ	LYS	C	331	54.455	68.791	69.293	1.00	43.43	N
ATOM	9475	C	LYS	C	331	47.855	70.704	67.115	1.00	36.47	C
ATOM	9476	O	LYS	C	331	47.883	71.427	66.110	1.00	37.10	O
ATOM	9477	N	ASP	C	332	46.949	69.745	67.299	1.00	35.03	N
ATOM	9479	CA	ASP	C	332	45.984	69.368	66.254	1.00	33.52	C
ATOM	9481	CB	ASP	C	332	45.735	67.856	66.326	1.00	33.42	C
ATOM	9484	CG	ASP	C	332	46.732	67.060	65.491	1.00	34.07	C
ATOM	9485	OD1	ASP	C	332	47.472	67.662	64.683	1.00	34.43	O
ATOM	9486	OD2	ASP	C	332	46.839	65.818	65.570	1.00	34.73	O
ATOM	9487	C	ASP	C	332	44.637	70.143	66.278	1.00	32.00	C
ATOM	9488	O	ASP	C	332	43.746	69.892	65.450	1.00	31.91	O
ATOM	9489	N	PHE	C	333	44.494	71.074	67.220	1.00	29.78	N
ATOM	9491	CA	PHE	C	333	43.245	71.783	67.422	1.00	28.34	C
ATOM	9493	CB	PHE	C	333	42.837	71.697	68.901	1.00	28.83	C
ATOM	9496	CG	PHE	C	333	42.336	70.323	69.334	1.00	30.95	C
ATOM	9497	CD1	PHE	C	333	43.156	69.199	69.239	1.00	33.57	C
ATOM	9499	CE1	PHE	C	333	42.697	67.944	69.626	1.00	34.89	C
ATOM	9501	CZ	PHE	C	333	41.402	67.795	70.120	1.00	34.94	C
ATOM	9503	CE2	PHE	C	333	40.583	68.899	70.229	1.00	33.86	C
ATOM	9505	CD2	PHE	C	333	41.049	70.160	69.847	1.00	32.43	C
ATOM	9507	C	PHE	C	333	43.442	73.230	66.975	1.00	26.25	C
ATOM	9508	O	PHE	C	333	43.950	74.058	67.737	1.00	26.49	O
ATOM	9509	N	THR	C	334	43.075	73.530	65.731	1.00	23.74	N
ATOM	9511	CA	THR	C	334	43.211	74.886	65.189	1.00	22.15	C
ATOM	9513	CB	THR	C	334	44.198	74.916	64.022	1.00	22.27	C
ATOM	9515	OG1	THR	C	334	43.789	73.981	63.020	1.00	21.35	O
ATOM	9517	CG2	THR	C	334	45.565	74.443	64.465	1.00	22.71	C
ATOM	9521	C	THR	C	334	41.886	75.436	64.726	1.00	20.28	C
ATOM	9522	O	THR	C	334	41.008	74.690	64.383	1.00	19.63	O
ATOM	9523	N	TYR	C	335	41.756	76.747	64.698	1.00	18.82	N
ATOM	9525	CA	TYR	C	335	40.469	77.370	64.438	1.00	18.55	C
ATOM	9527	CB	TYR	C	335	39.742	77.682	65.767	1.00	18.56	C
ATOM	9530	CG	TYR	C	335	39.672	76.472	66.671	1.00	17.82	C
ATOM	9531	CD1	TYR	C	335	40.650	76.239	67.630	1.00	16.61	C
ATOM	9533	CE1	TYR	C	335	40.623	75.103	68.408	1.00	17.81	C
ATOM	9535	CZ	TYR	C	335	39.599	74.180	68.254	1.00	18.25	C
ATOM	9536	OH	TYR	C	335	39.563	73.050	69.046	1.00	20.01	O
ATOM	9538	CE2	TYR	C	335	38.617	74.395	67.315	1.00	17.94	C
ATOM	9540	CD2	TYR	C	335	38.663	75.536	66.524	1.00	17.44	C
ATOM	9542	C	TYR	C	335	40.662	78.638	63.589	1.00	18.47	C
ATOM	9543	O	TYR	C	335	41.312	79.595	64.018	1.00	17.98	O
ATOM	9544	N	SER	C	336	40.128	78.605	62.367	1.00	18.11	N
ATOM	9546	CA	SER	C	336	40.004	79.782	61.510	1.00	17.60	C
ATOM	9548	CB	SER	C	336	39.716	79.335	60.101	1.00	17.17	C
ATOM	9551	OG	SER	C	336	38.417	78.800	60.047	1.00	15.50	O
ATOM	9553	C	SER	C	336	38.858	80.707	61.946	1.00	17.92	C
ATOM	9554	O	SER	C	336	38.074	80.379	62.836	1.00	16.89	O

295

ATOM	9555	N	LYS C 337	38.754	81.862	61.287	1.00	18.32	N
ATOM	9557	CA	LYS C 337	37.671	82.797	61.567	1.00	18.74	C
ATOM	9559	CB	LYS C 337	37.830	84.105	60.797	1.00	18.47	C
ATOM	9562	CG	LYS C 337	38.992	84.958	61.264	1.00	18.53	C
ATOM	9565	CD	LYS C 337	38.728	86.436	61.031	1.00	19.47	C
ATOM	9568	CE	LYS C 337	38.523	86.799	59.561	1.00	19.94	C
ATOM	9571	NZ	LYS C 337	38.656	88.274	59.301	1.00	18.41	N
ATOM	9575	C	LYS C 337	36.357	82.134	61.216	1.00	19.74	C
ATOM	9576	O	LYS C 337	35.384	82.253	61.955	1.00	20.66	O
ATOM	9577	N	ASP C 338	36.338	81.416	60.096	1.00	20.62	N
ATOM	9579	CA	ASP C 338	35.166	80.655	59.694	1.00	21.06	C
ATOM	9581	CB	ASP C 338	35.441	79.845	58.417	1.00	21.54	C
ATOM	9584	CG	ASP C 338	35.236	80.662	57.153	1.00	22.69	C
ATOM	9585	OD1	ASP C 338	34.782	81.831	57.239	1.00	22.27	O
ATOM	9586	OD2	ASP C 338	35.506	80.207	56.024	1.00	25.63	O
ATOM	9587	C	ASP C 338	34.737	79.721	60.793	1.00	20.84	C
ATOM	9588	O	ASP C 338	33.544	79.586	61.030	1.00	21.08	O
ATOM	9589	N	ASP C 339	35.707	79.097	61.461	1.00	20.65	N
ATOM	9591	CA	ASP C 339	35.430	78.135	62.535	1.00	20.49	C
ATOM	9593	CB	ASP C 339	36.723	77.485	63.041	1.00	19.99	C
ATOM	9596	CG	ASP C 339	37.270	76.474	62.079	1.00	18.52	C
ATOM	9597	OD1	ASP C 339	36.475	75.796	61.393	1.00	15.97	O
ATOM	9598	OD2	ASP C 339	38.486	76.284	61.943	1.00	18.05	O
ATOM	9599	C	ASP C 339	34.693	78.768	63.692	1.00	20.76	C
ATOM	9600	O	ASP C 339	33.751	78.203	64.230	1.00	20.00	O
ATOM	9601	N	PHE C 340	35.125	79.962	64.054	1.00	21.96	N
ATOM	9603	CA	PHE C 340	34.440	80.719	65.076	1.00	22.95	C
ATOM	9605	CB	PHE C 340	35.176	82.005	65.421	1.00	23.07	C
ATOM	9608	CG	PHE C 340	36.399	81.828	66.277	1.00	22.95	C
ATOM	9609	CD1	PHE C 340	37.463	81.066	65.866	1.00	22.51	C
ATOM	9611	CE1	PHE C 340	38.588	80.952	66.633	1.00	22.57	C
ATOM	9613	CZ	PHE C 340	38.682	81.605	67.807	1.00	23.78	C
ATOM	9615	CE2	PHE C 340	37.643	82.391	68.233	1.00	25.28	C
ATOM	9617	CD2	PHE C 340	36.512	82.509	67.463	1.00	24.52	C
ATOM	9619	C	PHE C 340	33.045	81.064	64.569	1.00	23.67	C
ATOM	9620	O	PHE C 340	32.085	80.943	65.309	1.00	23.60	O
ATOM	9621	N	HIS C 341	32.926	81.492	63.317	1.00	24.91	N
ATOM	9623	CA	HIS C 341	31.612	81.819	62.786	1.00	26.47	C
ATOM	9625	CB	HIS C 341	31.638	82.334	61.337	1.00	26.86	C
ATOM	9628	CG	HIS C 341	30.262	82.414	60.746	1.00	30.78	C
ATOM	9629	ND1	HIS C 341	29.302	83.287	61.224	1.00	33.90	N
ATOM	9631	CE1	HIS C 341	28.168	83.091	60.568	1.00	36.37	C
ATOM	9633	NE2	HIS C 341	28.347	82.102	59.702	1.00	36.36	N
ATOM	9635	CD2	HIS C 341	29.643	81.651	59.805	1.00	34.80	C
ATOM	9637	C	HIS C 341	30.619	80.641	62.894	1.00	26.47	C
ATOM	9638	O	HIS C 341	29.454	80.848	63.254	1.00	26.40	O
ATOM	9639	N	ARG C 342	31.084	79.429	62.605	1.00	26.78	N
ATOM	9641	CA	ARG C 342	30.240	78.241	62.639	1.00	27.49	C

296

ATOM	9643	CB	ARG C 342	30.930	77.068	61.967	1.00	27.93	C
ATOM	9646	CG	ARG C 342	31.042	77.195	60.478	1.00	29.90	C
ATOM	9649	CD	ARG C 342	32.392	76.757	59.973	1.00	33.11	C
ATOM	9652	NE	ARG C 342	32.473	76.765	58.516	1.00	35.74	N
ATOM	9654	CZ	ARG C 342	33.545	76.392	57.827	1.00	37.80	C
ATOM	9655	NH1	ARG C 342	34.653	75.981	58.453	1.00	37.69	N
ATOM	9658	NH2	ARG C 342	33.509	76.426	56.499	1.00	39.32	N
ATOM	9661	C	ARG C 342	29.887	77.821	64.043	1.00	27.39	C
ATOM	9662	O	ARG C 342	28.925	77.116	64.239	1.00	28.16	O
ATOM	9663	N	ALA C 343	30.688	78.225	65.013	1.00	27.43	N
ATOM	9665	CA	ALA C 343	30.359	78.051	66.416	1.00	27.24	C
ATOM	9667	CB	ALA C 343	31.608	78.221	67.263	1.00	27.10	C
ATOM	9671	C	ALA C 343	29.286	79.029	66.882	1.00	27.37	C
ATOM	9672	O	ALA C 343	28.997	79.068	68.078	1.00	27.62	O
ATOM	9673	N	GLY C 344	28.704	79.802	65.951	1.00	27.38	N
ATOM	9675	CA	GLY C 344	27.653	80.784	66.234	1.00	27.23	C
ATOM	9678	C	GLY C 344	28.108	82.172	66.731	1.00	26.99	C
ATOM	9679	O	GLY C 344	27.284	82.969	67.222	1.00	26.63	O
ATOM	9680	N	LEU C 345	29.401	82.470	66.611	1.00	26.29	N
ATOM	9682	CA	LEU C 345	29.920	83.761	67.043	1.00	26.05	C
ATOM	9684	CB	LEU C 345	31.392	83.660	67.508	1.00	26.01	C
ATOM	9687	CG	LEU C 345	31.793	82.508	68.452	1.00	27.03	C
ATOM	9689	CD1	LEU C 345	32.888	82.915	69.392	1.00	27.83	C
ATOM	9693	CD2	LEU C 345	30.637	82.014	69.280	1.00	29.12	C
ATOM	9697	C	LEU C 345	29.740	84.821	65.945	1.00	25.74	C
ATOM	9698	O	LEU C 345	29.797	84.531	64.753	1.00	24.32	O
ATOM	9699	N	GLN C 346	29.483	86.043	66.412	1.00	26.61	N
ATOM	9701	CA	GLN C 346	29.309	87.257	65.615	1.00	27.29	C
ATOM	9703	CB	GLN C 346	28.979	88.441	66.520	1.00	27.75	C
ATOM	9706	CG	GLN C 346	27.667	88.453	67.274	1.00	30.06	C
ATOM	9709	CD	GLN C 346	27.621	89.629	68.287	1.00	32.70	C
ATOM	9710	OE1	GLN C 346	26.604	90.312	68.389	1.00	36.00	O
ATOM	9711	NE2	GLN C 346	28.725	89.863	69.011	1.00	30.49	N
ATOM	9714	C	GLN C 346	30.599	87.679	64.955	1.00	27.40	C
ATOM	9715	O	GLN C 346	31.678	87.520	65.522	1.00	28.47	O
ATOM	9716	N	VAL C 347	30.494	88.319	63.809	1.00	26.94	N
ATOM	9718	CA	VAL C 347	31.661	88.882	63.154	1.00	26.52	C
ATOM	9720	CB	VAL C 347	31.260	89.348	61.746	1.00	26.83	C
ATOM	9722	CG1	VAL C 347	30.781	90.818	61.735	1.00	27.09	C
ATOM	9726	CG2	VAL C 347	32.382	89.108	60.821	1.00	27.86	C
ATOM	9730	C	VAL C 347	32.316	90.021	63.968	1.00	25.70	C
ATOM	9731	O	VAL C 347	33.523	90.192	63.948	1.00	24.79	O
ATOM	9732	N	GLU C 348	31.500	90.766	64.707	1.00	25.23	N
ATOM	9734	CA	GLU C 348	31.941	91.910	65.508	1.00	25.25	C
ATOM	9736	CB	GLU C 348	30.718	92.610	66.148	1.00	26.27	C
ATOM	9739	CG	GLU C 348	29.820	93.435	65.231	1.00	29.33	C
ATOM	9742	CD	GLU C 348	28.795	92.623	64.439	1.00	34.78	C
ATOM	9743	OE1	GLU C 348	28.748	91.364	64.556	1.00	35.05	O

297

ATOM	9744	OE2	GLU C 348	28.022	93.274	63.665	1.00	39.97	O
ATOM	9745	C	GLU C 348	32.873	91.503	66.655	1.00	23.99	C
ATOM	9746	O	GLU C 348	33.499	92.355	67.279	1.00	23.59	O
ATOM	9747	N	PHE C 349	32.880	90.212	66.989	1.00	22.63	N
ATOM	9749	CA	PHE C 349	33.822	89.626	67.948	1.00	21.44	C
ATOM	9751	CB	PHE C 349	33.093	88.619	68.816	1.00	21.89	C
ATOM	9754	CG	PHE C 349	33.898	88.062	69.936	1.00	22.89	C
ATOM	9755	CD1	PHE C 349	34.514	88.893	70.847	1.00	25.73	C
ATOM	9757	CE1	PHE C 349	35.239	88.354	71.906	1.00	27.78	C
ATOM	9759	CZ	PHE C 349	35.320	86.979	72.058	1.00	26.52	C
ATOM	9761	CE2	PHE C 349	34.697	86.156	71.156	1.00	25.03	C
ATOM	9763	CD2	PHE C 349	33.995	86.692	70.105	1.00	23.88	C
ATOM	9765	C	PHE C 349	34.934	88.910	67.215	1.00	20.23	C
ATOM	9766	O	PHE C 349	36.089	89.139	67.494	1.00	19.56	O
ATOM	9767	N	ILE C 350	34.587	88.073	66.244	1.00	18.88	N
ATOM	9769	CA	ILE C 350	35.588	87.275	65.555	1.00	18.34	C
ATOM	9771	CB	ILE C 350	34.919	86.374	64.501	1.00	18.48	C
ATOM	9773	CG1	ILE C 350	34.053	85.320	65.180	1.00	19.15	C
ATOM	9776	CD1	ILE C 350	32.929	84.839	64.286	1.00	20.67	C
ATOM	9780	CG2	ILE C 350	35.956	85.654	63.625	1.00	18.23	C
ATOM	9784	C	ILE C 350	36.697	88.127	64.918	1.00	18.02	C
ATOM	9785	O	ILE C 350	37.894	87.805	65.066	1.00	17.63	O
ATOM	9786	N	ASN C 351	36.313	89.203	64.216	1.00	17.31	N
ATOM	9788	CA	ASN C 351	37.284	89.993	63.470	1.00	16.76	C
ATOM	9790	CB	ASN C 351	36.634	90.970	62.471	1.00	16.58	C
ATOM	9793	CG	ASN C 351	36.193	90.299	61.157	1.00	15.21	C
ATOM	9794	OD1	ASN C 351	36.680	89.250	60.774	1.00	16.64	O
ATOM	9795	ND2	ASN C 351	35.265	90.923	60.478	1.00	12.76	N
ATOM	9798	C	ASN C 351	38.251	90.703	64.415	1.00	17.01	C
ATOM	9799	O	ASN C 351	39.428	90.591	64.211	1.00	17.64	O
ATOM	9800	N	PRO C 352	37.796	91.423	65.431	1.00	17.04	N
ATOM	9801	CA	PRO C 352	38.701	92.051	66.390	1.00	17.25	C
ATOM	9803	CB	PRO C 352	37.734	92.660	67.386	1.00	17.51	C
ATOM	9806	CG	PRO C 352	36.576	93.055	66.525	1.00	17.29	C
ATOM	9809	CD	PRO C 352	36.403	91.832	65.684	1.00	17.74	C
ATOM	9812	C	PRO C 352	39.662	91.131	67.120	1.00	17.55	C
ATOM	9813	O	PRO C 352	40.735	91.557	67.538	1.00	17.30	O
ATOM	9814	N	ILE C 353	39.280	89.878	67.285	1.00	17.86	N
ATOM	9816	CA	ILE C 353	40.121	88.908	67.973	1.00	18.08	C
ATOM	9818	CB	ILE C 353	39.344	87.642	68.260	1.00	18.73	C
ATOM	9820	CG1	ILE C 353	38.612	87.745	69.557	1.00	19.43	C
ATOM	9823	CD1	ILE C 353	37.650	86.617	69.621	1.00	22.63	C
ATOM	9827	CG2	ILE C 353	40.238	86.413	68.304	1.00	21.14	C
ATOM	9831	C	ILE C 353	41.223	88.565	67.044	1.00	17.44	C
ATOM	9832	O	ILE C 353	42.370	88.413	67.466	1.00	17.27	O
ATOM	9833	N	PHE C 354	40.863	88.377	65.775	1.00	17.04	N
ATOM	9835	CA	PHE C 354	41.870	88.096	64.776	1.00	16.79	C
ATOM	9837	CB	PHE C 354	41.295	87.430	63.524	1.00	16.89	C

298

ATOM	9840	CG	PHE	C	354	41.106	85.940	63.679	1.00	16.68	C
ATOM	9841	CD1	PHE	C	354	40.077	85.443	64.458	1.00	16.83	C
ATOM	9843	CE1	PHE	C	354	39.918	84.087	64.633	1.00	16.11	C
ATOM	9845	CZ	PHE	C	354	40.796	83.218	64.047	1.00	15.19	C
ATOM	9847	CE2	PHE	C	354	41.834	83.694	63.291	1.00	14.88	C
ATOM	9849	CD2	PHE	C	354	41.987	85.045	63.107	1.00	15.98	C
ATOM	9851	C	PHE	C	354	42.707	89.330	64.487	1.00	16.83	C
ATOM	9852	O	PHE	C	354	43.882	89.151	64.281	1.00	16.91	O
ATOM	9853	N	GLU	C	355	42.181	90.564	64.572	1.00	17.05	N
ATOM	9855	CA	GLU	C	355	43.042	91.758	64.341	1.00	18.14	C
ATOM	9857	CB	GLU	C	355	42.309	93.115	64.163	1.00	18.96	C
ATOM	9860	CG	GLU	C	355	40.898	92.929	63.605	1.00	24.73	C
ATOM	9863	CD	GLU	C	355	40.007	94.178	63.479	1.00	30.19	C
ATOM	9864	OE1	GLU	C	355	38.932	94.030	62.795	1.00	29.35	O
ATOM	9865	OE2	GLU	C	355	40.334	95.245	64.099	1.00	32.39	O
ATOM	9866	C	GLU	C	355	44.081	91.842	65.437	1.00	17.35	C
ATOM	9867	O	GLU	C	355	45.256	91.877	65.147	1.00	17.04	O
ATOM	9868	N	PHE	C	356	43.641	91.846	66.684	1.00	17.06	N
ATOM	9870	CA	PHE	C	356	44.525	91.801	67.843	1.00	16.82	C
ATOM	9872	CB	PHE	C	356	43.693	91.488	69.083	1.00	17.28	C
ATOM	9875	CG	PHE	C	356	44.468	91.485	70.374	1.00	16.78	C
ATOM	9876	CD1	PHE	C	356	44.878	92.672	70.945	1.00	16.87	C
ATOM	9878	CE1	PHE	C	356	45.563	92.700	72.131	1.00	17.87	C
ATOM	9880	CZ	PHE	C	356	45.829	91.535	72.793	1.00	17.65	C
ATOM	9882	CE2	PHE	C	356	45.414	90.332	72.251	1.00	18.63	C
ATOM	9884	CD2	PHE	C	356	44.719	90.308	71.043	1.00	17.21	C
ATOM	9886	C	PHE	C	356	45.573	90.722	67.714	1.00	17.34	C
ATOM	9887	O	PHE	C	356	46.736	90.927	68.092	1.00	17.16	O
ATOM	9888	N	SER	C	357	45.174	89.556	67.203	1.00	17.18	N
ATOM	9890	CA	SER	C	357	46.108	88.439	67.136	1.00	17.38	C
ATOM	9892	CB	SER	C	357	45.381	87.133	66.813	1.00	17.76	C
ATOM	9895	OG	SER	C	357	44.418	86.873	67.825	1.00	18.50	O
ATOM	9897	C	SER	C	357	47.236	88.737	66.152	1.00	16.38	C
ATOM	9898	O	SER	C	357	48.396	88.587	66.474	1.00	15.52	O
ATOM	9899	N	ARG	C	358	46.857	89.200	64.978	1.00	16.04	N
ATOM	9901	CA	ARG	C	358	47.785	89.681	63.961	1.00	16.53	C
ATOM	9903	CB	ARG	C	358	46.990	90.176	62.736	1.00	16.22	C
ATOM	9906	CG	ARG	C	358	46.325	89.101	61.928	1.00	14.87	C
ATOM	9909	CD	ARG	C	358	45.937	89.541	60.556	1.00	13.61	C
ATOM	9912	NE	ARG	C	358	44.956	90.614	60.583	1.00	12.04	N
ATOM	9914	CZ	ARG	C	358	43.667	90.450	60.802	1.00	11.62	C
ATOM	9915	NH1	ARG	C	358	43.133	89.263	61.004	1.00	11.73	N
ATOM	9918	NH2	ARG	C	358	42.890	91.500	60.809	1.00	13.12	N
ATOM	9921	C	ARG	C	358	48.709	90.832	64.418	1.00	16.96	C
ATOM	9922	O	ARG	C	358	49.835	90.921	63.974	1.00	16.47	O
ATOM	9923	N	ALA	C	359	48.188	91.723	65.256	1.00	17.76	N
ATOM	9925	CA	ALA	C	359	48.885	92.902	65.732	1.00	18.41	C
ATOM	9927	CB	ALA	C	359	47.897	93.908	66.291	1.00	18.54	C

299

ATOM	9931	C	ALA C 359	49.861	92.495	66.803	1.00	19.75	C
ATOM	9932	O	ALA C 359	51.016	92.878	66.741	1.00	20.24	O
ATOM	9933	N	MET C 360	49.414	91.722	67.796	1.00	20.82	N
ATOM	9935	CA	MET C 360	50.349	91.113	68.733	1.00	21.74	C
ATOM	9937	CB	MET C 360	49.652	90.151	69.684	1.00	21.72	C
ATOM	9940	CG	MET C 360	48.761	90.800	70.719	1.00	22.69	C
ATOM	9943	SD	MET C 360	49.549	91.976	71.785	1.00	21.63	S
ATOM	9944	CE	MET C 360	50.525	90.934	72.758	1.00	23.43	C
ATOM	9948	C	MET C 360	51.503	90.375	68.024	1.00	22.40	C
ATOM	9949	O	MET C 360	52.625	90.480	68.456	1.00	22.90	O
ATOM	9950	N	ARG C 361	51.250	89.631	66.958	1.00	23.53	N
ATOM	9952	CA	ARG C 361	52.334	88.893	66.281	1.00	24.93	C
ATOM	9954	CB	ARG C 361	51.782	88.118	65.070	1.00	25.30	C
ATOM	9957	CG	ARG C 361	52.811	87.720	64.015	1.00	27.27	C
ATOM	9960	CD	ARG C 361	52.259	87.610	62.597	1.00	30.11	C
ATOM	9963	NE	ARG C 361	53.023	86.632	61.823	1.00	32.45	N
ATOM	9965	CZ	ARG C 361	53.432	86.776	60.556	1.00	35.21	C
ATOM	9966	NH1	ARG C 361	53.171	87.887	59.847	1.00	35.66	N
ATOM	9969	NH2	ARG C 361	54.118	85.778	59.985	1.00	35.46	N
ATOM	9972	C	ARG C 361	53.459	89.842	65.846	1.00	25.31	C
ATOM	9973	O	ARG C 361	54.644	89.539	65.988	1.00	24.75	O
ATOM	9974	N	ARG C 362	53.021	90.985	65.315	1.00	26.30	N
ATOM	9976	CA	ARG C 362	53.817	92.131	64.879	1.00	26.81	C
ATOM	9978	CB	ARG C 362	52.835	93.250	64.461	1.00	27.31	C
ATOM	9981	CG	ARG C 362	53.313	94.320	63.491	1.00	29.92	C
ATOM	9984	CD	ARG C 362	52.162	95.097	62.825	1.00	31.82	C
ATOM	9987	NE	ARG C 362	51.356	94.189	62.005	1.00	32.00	N
ATOM	9989	CZ	ARG C 362	50.031	94.021	62.092	1.00	33.06	C
ATOM	9990	NH1	ARG C 362	49.277	94.722	62.947	1.00	31.56	N
ATOM	9993	NH2	ARG C 362	49.446	93.131	61.293	1.00	34.15	N
ATOM	9996	C	ARG C 362	54.720	92.635	65.999	1.00	26.45	C
ATOM	9997	O	ARG C 362	55.840	93.010	65.775	1.00	26.56	O
ATOM	9998	N	LEU C 363	54.221	92.679	67.212	1.00	26.40	N
ATOM	10000	CA	LEU C 363	55.085	93.001	68.330	1.00	26.69	C
ATOM	10002	CB	LEU C 363	54.244	93.218	69.584	1.00	26.96	C
ATOM	10005	CG	LEU C 363	53.737	94.633	69.743	1.00	28.33	C
ATOM	10007	CD1	LEU C 363	52.958	94.712	71.029	1.00	28.19	C
ATOM	10011	CD2	LEU C 363	54.916	95.635	69.719	1.00	29.47	C
ATOM	10015	C	LEU C 363	56.171	91.946	68.615	1.00	26.28	C
ATOM	10016	O	LEU C 363	57.261	92.298	69.013	1.00	25.96	O
ATOM	10017	N	GLY C 364	55.855	90.663	68.465	1.00	26.11	N
ATOM	10019	CA	GLY C 364	56.816	89.605	68.701	1.00	26.12	C
ATOM	10022	C	GLY C 364	57.326	89.551	70.130	1.00	26.28	C
ATOM	10023	O	GLY C 364	58.530	89.636	70.369	1.00	26.55	O
ATOM	10024	N	LEU C 365	56.419	89.412	71.090	1.00	26.35	N
ATOM	10026	CA	LEU C 365	56.828	89.262	72.474	1.00	26.62	C
ATOM	10028	CB	LEU C 365	55.649	89.451	73.420	1.00	26.84	C
ATOM	10031	CG	LEU C 365	54.705	90.642	73.256	1.00	28.48	C

300

ATOM 10033	CD1 LEU C 365	53.735	90.730	74.471	1.00	29.09	C
ATOM 10037	CD2 LEU C 365	55.479	91.922	73.108	1.00	29.85	C
ATOM 10041	C LEU C 365	57.441	87.880	72.699	1.00	26.50	C
ATOM 10042	O LEU C 365	56.984	86.880	72.121	1.00	27.02	O
ATOM 10043	N ASP C 366	58.484	87.833	73.522	1.00	25.82	N
ATOM 10045	CA ASP C 366	59.014	86.572	74.008	1.00	25.54	C
ATOM 10047	CB ASP C 366	60.530	86.662	74.223	1.00	25.31	C
ATOM 10050	CG ASP C 366	60.932	87.699	75.278	1.00	25.54	C
ATOM 10051	OD1 ASP C 366	60.092	88.049	76.140	1.00	27.00	O
ATOM 10052	OD2 ASP C 366	62.074	88.213	75.336	1.00	23.90	O
ATOM 10053	C ASP C 366	58.266	86.177	75.305	1.00	25.67	C
ATOM 10054	O ASP C 366	57.461	86.968	75.843	1.00	25.93	O
ATOM 10055	N ASP C 367	58.536	84.955	75.781	1.00	25.06	N
ATOM 10057	CA ASP C 367	57.934	84.386	77.001	1.00	24.68	C
ATOM 10059	CB ASP C 367	58.724	83.136	77.423	1.00	25.13	C
ATOM 10062	CG ASP C 367	58.631	81.996	76.418	1.00	26.28	C
ATOM 10063	OD1 ASP C 367	57.765	82.047	75.514	1.00	25.81	O
ATOM 10064	OD2 ASP C 367	59.406	81.004	76.474	1.00	28.52	O
ATOM 10065	C ASP C 367	57.883	85.320	78.229	1.00	24.10	C
ATOM 10066	O ASP C 367	56.903	85.306	79.024	1.00	22.49	O
ATOM 10067	N ALA C 368	58.984	86.075	78.387	1.00	23.55	N
ATOM 10069	CA ALA C 368	59.213	86.954	79.536	1.00	22.91	C
ATOM 10071	CB ALA C 368	60.619	87.492	79.502	1.00	23.06	C
ATOM 10075	C ALA C 368	58.231	88.094	79.517	1.00	22.31	C
ATOM 10076	O ALA C 368	57.646	88.446	80.546	1.00	22.06	O
ATOM 10077	N GLU C 369	58.051	88.643	78.316	1.00	21.69	N
ATOM 10079	CA GLU C 369	57.169	89.791	78.096	1.00	20.97	C
ATOM 10081	CB GLU C 369	57.463	90.435	76.731	1.00	20.89	C
ATOM 10084	CG GLU C 369	58.738	91.284	76.722	1.00	18.99	C
ATOM 10087	CD GLU C 369	59.372	91.484	75.342	1.00	17.52	C
ATOM 10088	OE1 GLU C 369	60.058	92.511	75.180	1.00	16.47	O
ATOM 10089	OE2 GLU C 369	59.221	90.641	74.421	1.00	16.36	O
ATOM 10090	C GLU C 369	55.698	89.409	78.238	1.00	20.50	C
ATOM 10091	O GLU C 369	54.925	90.171	78.803	1.00	20.24	O
ATOM 10092	N TYR C 370	55.320	88.232	77.760	1.00	19.94	N
ATOM 10094	CA TYR C 370	53.942	87.832	77.870	1.00	20.41	C
ATOM 10096	CB TYR C 370	53.689	86.539	77.102	1.00	20.54	C
ATOM 10099	CG TYR C 370	53.051	86.728	75.727	1.00	22.11	C
ATOM 10100	CD1 TYR C 370	53.750	86.401	74.574	1.00	23.49	C
ATOM 10102	CE1 TYR C 370	53.197	86.553	73.337	1.00	23.37	C
ATOM 10104	CZ TYR C 370	51.936	87.044	73.198	1.00	23.38	C
ATOM 10105	OH TYR C 370	51.445	87.167	71.918	1.00	25.78	O
ATOM 10107	CE2 TYR C 370	51.198	87.377	74.308	1.00	23.16	C
ATOM 10109	CD2 TYR C 370	51.758	87.211	75.578	1.00	22.69	C
ATOM 10111	C TYR C 370	53.567	87.675	79.349	1.00	20.55	C
ATOM 10112	O TYR C 370	52.550	88.157	79.804	1.00	20.68	O
ATOM 10113	N ALA C 371	54.424	87.028	80.115	1.00	21.01	N
ATOM 10115	CA ALA C 371	54.104	86.692	81.498	1.00	20.71	C

301

ATOM 10117	CB ALA C 371	55.123	85.737	82.021	1.00	21.09	C
ATOM 10121	C ALA C 371	54.044	87.915	82.379	1.00	20.62	C
ATOM 10122	O ALA C 371	53.217	88.003	83.295	1.00	19.75	O
ATOM 10123	N LEU C 372	54.937	88.851	82.080	1.00	20.82	N
ATOM 10125	CA LEU C 372	54.943	90.156	82.734	1.00	21.23	C
ATOM 10127	CB LEU C 372	56.238	90.934	82.400	1.00	21.20	C
ATOM 10130	CG LEU C 372	57.489	90.444	83.168	1.00	21.11	C
ATOM 10132	CD1 LEU C 372	58.749	91.065	82.616	1.00	20.65	C
ATOM 10136	CD2 LEU C 372	57.347	90.751	84.655	1.00	20.82	C
ATOM 10140	C LEU C 372	53.693	90.993	82.402	1.00	21.30	C
ATOM 10141	O LEU C 372	53.125	91.653	83.290	1.00	21.12	O
ATOM 10142	N LEU C 373	53.262	90.965	81.144	1.00	21.20	N
ATOM 10144	CA LEU C 373	52.045	91.684	80.741	1.00	21.46	C
ATOM 10146	CB LEU C 373	51.852	91.625	79.227	1.00	22.26	C
ATOM 10149	CG LEU C 373	51.785	92.881	78.364	1.00	23.82	C
ATOM 10151	CD1 LEU C 373	51.079	92.498	77.110	1.00	26.07	C
ATOM 10155	CD2 LEU C 373	51.069	94.022	79.018	1.00	25.10	C
ATOM 10159	C LEU C 373	50.810	91.068	81.405	1.00	20.82	C
ATOM 10160	O LEU C 373	49.889	91.782	81.801	1.00	20.56	O
ATOM 10161	N ILE C 374	50.804	89.741	81.538	1.00	20.35	N
ATOM 10163	CA ILE C 374	49.712	89.038	82.215	1.00	19.83	C
ATOM 10165	CB ILE C 374	49.837	87.504	82.026	1.00	19.67	C
ATOM 10167	CG1 ILE C 374	49.609	87.124	80.570	1.00	18.25	C
ATOM 10170	CD1 ILE C 374	50.070	85.805	80.239	1.00	17.91	C
ATOM 10174	CG2 ILE C 374	48.820	86.773	82.904	1.00	20.58	C
ATOM 10178	C ILE C 374	49.641	89.416	83.704	1.00	19.80	C
ATOM 10179	O ILE C 374	48.561	89.638	84.248	1.00	19.27	O
ATOM 10180	N ALA C 375	50.800	89.498	84.342	1.00	20.09	N
ATOM 10182	CA ALA C 375	50.885	89.850	85.749	1.00	20.49	C
ATOM 10184	CB ALA C 375	52.297	89.660	86.256	1.00	20.40	C
ATOM 10188	C ALA C 375	50.462	91.287	85.940	1.00	21.01	C
ATOM 10189	O ALA C 375	49.738	91.621	86.880	1.00	21.55	O
ATOM 10190	N ILE C 376	50.914	92.155	85.054	1.00	21.25	N
ATOM 10192	CA ILE C 376	50.487	93.540	85.147	1.00	21.75	C
ATOM 10194	CB ILE C 376	51.120	94.397	84.049	1.00	22.02	C
ATOM 10196	CG1 ILE C 376	52.633	94.584	84.325	1.00	22.83	C
ATOM 10199	CD1 ILE C 376	53.499	95.020	83.102	1.00	22.97	C
ATOM 10203	CG2 ILE C 376	50.356	95.720	83.927	1.00	21.74	C
ATOM 10207	C ILE C 376	48.977	93.573	85.021	1.00	22.03	C
ATOM 10208	O ILE C 376	48.306	94.274	85.780	1.00	22.24	O
ATOM 10209	N ASN C 377	48.462	92.805	84.053	1.00	22.18	N
ATOM 10211	CA ASN C 377	47.049	92.807	83.717	1.00	22.16	C
ATOM 10213	CB ASN C 377	46.792	91.894	82.512	1.00	22.34	C
ATOM 10216	CG ASN C 377	45.340	91.928	82.053	1.00	23.24	C
ATOM 10217	OD1 ASN C 377	44.487	91.235	82.624	1.00	25.25	O
ATOM 10218	ND2 ASN C 377	45.048	92.740	81.042	1.00	21.97	N
ATOM 10221	C ASN C 377	46.193	92.391	84.924	1.00	21.96	C
ATOM 10222	O ASN C 377	45.222	93.060	85.282	1.00	21.34	O

302

ATOM 10223	N ILE C 378	46.581	91.282	85.551	1.00	22.24	N
ATOM 10225	CA ILE C 378	45.945	90.795	86.806	1.00	21.86	C
ATOM 10227	CB ILE C 378	46.760	89.582	87.339	1.00	21.27	C
ATOM 10229	CG1 ILE C 378	46.488	88.360	86.454	1.00	20.50	C
ATOM 10232	CD1 ILE C 378	47.527	87.185	86.593	1.00	21.01	C
ATOM 10236	CG2 ILE C 378	46.412	89.292	88.780	1.00	21.94	C
ATOM 10240	C ILE C 378	45.770	91.897	87.897	1.00	21.49	C
ATOM 10241	O ILE C 378	44.687	92.096	88.433	1.00	19.66	O
ATOM 10242	N PHE C 379	46.860	92.611	88.162	1.00	22.23	N
ATOM 10244	CA PHE C 379	46.946	93.623	89.217	1.00	22.96	C
ATOM 10246	CB PHE C 379	48.369	93.663	89.813	1.00	22.66	C
ATOM 10249	CG PHE C 379	48.767	92.406	90.526	1.00	22.91	C
ATOM 10250	CD1 PHE C 379	49.961	91.762	90.210	1.00	22.67	C
ATOM 10252	CE1 PHE C 379	50.334	90.610	90.874	1.00	21.01	C
ATOM 10254	CZ PHE C 379	49.506	90.083	91.868	1.00	21.68	C
ATOM 10256	CE2 PHE C 379	48.324	90.701	92.207	1.00	21.90	C
ATOM 10258	CD2 PHE C 379	47.953	91.864	91.533	1.00	24.00	C
ATOM 10260	C PHE C 379	46.527	95.021	88.751	1.00	23.26	C
ATOM 10261	O PHE C 379	47.210	95.997	88.972	1.00	22.51	O
ATOM 10262	N SER C 380	45.364	95.107	88.137	1.00	24.39	N
ATOM 10264	CA SER C 380	44.842	96.390	87.709	1.00	25.22	C
ATOM 10266	CB SER C 380	44.295	96.277	86.279	1.00	25.20	C
ATOM 10269	OG SER C 380	45.187	95.547	85.453	1.00	23.22	O
ATOM 10271	C SER C 380	43.799	96.848	88.742	1.00	25.91	C
ATOM 10272	O SER C 380	42.695	96.299	88.849	1.00	24.92	O
ATOM 10273	N ALA C 381	44.185	97.873	89.497	1.00	27.23	N
ATOM 10275	CA ALA C 381	43.428	98.348	90.671	1.00	28.01	C
ATOM 10277	CB ALA C 381	44.244	99.402	91.448	1.00	27.35	C
ATOM 10281	C ALA C 381	42.017	98.888	90.350	1.00	28.78	C
ATOM 10282	O ALA C 381	41.168	98.986	91.254	1.00	29.19	O
ATOM 10283	N ASP C 382	41.776	99.215	89.077	1.00	29.16	N
ATOM 10285	CA ASP C 382	40.508	99.807	88.639	1.00	29.25	C
ATOM 10287	CB ASP C 382	40.801	100.771	87.516	1.00	29.43	C
ATOM 10290	CG ASP C 382	41.288	100.069	86.275	1.00	31.79	C
ATOM 10291	OD1 ASP C 382	41.958	98.995	86.392	1.00	30.62	O
ATOM 10292	OD2 ASP C 382	41.037	100.543	85.138	1.00	35.14	O
ATOM 10293	C ASP C 382	39.430	98.812	88.170	1.00	28.95	C
ATOM 10294	O ASP C 382	38.468	99.183	87.501	1.00	28.93	O
ATOM 10295	N ARG C 383	39.564	97.544	88.525	1.00	28.77	N
ATOM 10297	CA ARG C 383	38.525	96.593	88.169	1.00	28.43	C
ATOM 10299	CB ARG C 383	39.021	95.163	88.360	1.00	28.28	C
ATOM 10302	CG ARG C 383	40.236	94.829	87.593	1.00	26.97	C
ATOM 10305	CD ARG C 383	40.026	94.899	86.117	1.00	26.28	C
ATOM 10308	NE ARG C 383	41.162	94.299	85.408	1.00	24.87	N
ATOM 10310	CZ ARG C 383	41.202	94.092	84.110	1.00	21.15	C
ATOM 10311	NH1 ARG C 383	40.168	94.424	83.354	1.00	19.43	N
ATOM 10314	NH2 ARG C 383	42.283	93.552	83.578	1.00	20.52	N
ATOM 10317	C ARG C 383	37.252	96.827	89.010	1.00	28.42	C

303

ATOM 10318	O	ARG C 383	37.314	97.405	90.078	1.00	27.50	O
ATOM 10319	N	PRO C 384	36.110	96.366	88.514	1.00	28.96	N
ATOM 10320	CA	PRO C 384	34.869	96.341	89.284	1.00	29.32	C
ATOM 10322	CB	PRO C 384	33.891	95.616	88.352	1.00	29.56	C
ATOM 10325	CG	PRO C 384	34.465	95.725	86.996	1.00	29.51	C
ATOM 10328	CD	PRO C 384	35.923	95.836	87.151	1.00	29.25	C
ATOM 10331	C	PRO C 384	34.970	95.550	90.589	1.00	29.67	C
ATOM 10332	O	PRO C 384	35.455	94.404	90.550	1.00	30.34	O
ATOM 10333	N	ASN C 385	34.516	96.172	91.693	1.00	29.15	N
ATOM 10335	CA	ASN C 385	34.335	95.560	93.008	1.00	28.59	C
ATOM 10337	CB	ASN C 385	33.388	94.351	92.926	1.00	28.55	C
ATOM 10340	CG	ASN C 385	32.101	94.679	92.205	1.00	28.72	C
ATOM 10341	OD1	ASN C 385	31.364	95.552	92.631	1.00	30.01	O
ATOM 10342	ND2	ASN C 385	31.839	94.004	91.098	1.00	28.47	N
ATOM 10345	C	ASN C 385	35.616	95.178	93.716	1.00	28.24	C
ATOM 10346	O	ASN C 385	35.589	94.337	94.610	1.00	28.84	O
ATOM 10347	N	VAL C 386	36.733	95.785	93.331	1.00	27.80	N
ATOM 10349	CA	VAL C 386	37.980	95.611	94.069	1.00	27.70	C
ATOM 10351	CB	VAL C 386	39.226	96.083	93.300	1.00	27.91	C
ATOM 10353	CG1	VAL C 386	40.443	95.981	94.190	1.00	28.89	C
ATOM 10357	CG2	VAL C 386	39.447	95.278	92.003	1.00	28.00	C
ATOM 10361	C	VAL C 386	37.872	96.449	95.328	1.00	27.72	C
ATOM 10362	O	VAL C 386	37.396	97.584	95.304	1.00	27.40	O
ATOM 10363	N	GLN C 387	38.330	95.875	96.431	1.00	27.89	N
ATOM 10365	CA	GLN C 387	38.069	96.393	97.763	1.00	27.47	C
ATOM 10367	CB	GLN C 387	37.478	95.290	98.628	1.00	27.46	C
ATOM 10370	CG	GLN C 387	36.271	94.618	98.004	1.00	29.01	C
ATOM 10373	CD	GLN C 387	35.066	94.649	98.896	1.00	31.95	C
ATOM 10374	OE1	GLN C 387	34.297	95.612	98.873	1.00	34.44	O
ATOM 10375	NE2	GLN C 387	34.891	93.599	99.695	1.00	32.89	N
ATOM 10378	C	GLN C 387	39.330	96.927	98.396	1.00	27.04	C
ATOM 10379	O	GLN C 387	39.263	97.511	99.459	1.00	27.19	O
ATOM 10380	N	GLU C 388	40.480	96.737	97.751	1.00	26.75	N
ATOM 10382	CA	GLU C 388	41.737	97.323	98.223	1.00	26.26	C
ATOM 10384	CB	GLU C 388	42.506	96.319	99.077	1.00	26.27	C
ATOM 10387	CG	GLU C 388	41.810	95.953	100.373	1.00	25.93	C
ATOM 10390	CD	GLU C 388	42.769	95.473	101.452	1.00	26.32	C
ATOM 10391	OE1	GLU C 388	43.187	94.301	101.395	1.00	23.97	O
ATOM 10392	OE2	GLU C 388	43.087	96.272	102.373	1.00	29.05	O
ATOM 10393	C	GLU C 388	42.595	97.784	97.043	1.00	25.86	C
ATOM 10394	O	GLU C 388	43.712	97.281	96.851	1.00	25.49	O
ATOM 10395	N	PRO C 389	42.083	98.755	96.271	1.00	25.44	N
ATOM 10396	CA	PRO C 389	42.768	99.211	95.049	1.00	24.67	C
ATOM 10398	CB	PRO C 389	41.909	100.380	94.546	1.00	24.61	C
ATOM 10401	CG	PRO C 389	40.898	100.661	95.599	1.00	24.99	C
ATOM 10404	CD	PRO C 389	40.829	99.497	96.521	1.00	25.33	C
ATOM 10407	C	PRO C 389	44.194	99.649	95.335	1.00	24.23	C
ATOM 10408	O	PRO C 389	45.083	99.271	94.569	1.00	23.99	O

304

ATOM 10409	N	GLY C 390	44.404	100.414	96.412	1.00	23.99	N
ATOM 10411	CA	GLY C 390	45.739	100.826	96.831	1.00	23.80	C
ATOM 10414	C	GLY C 390	46.722	99.671	96.832	1.00	24.09	C
ATOM 10415	O	GLY C 390	47.796	99.753	96.246	1.00	23.75	O
ATOM 10416	N	ARG C 391	46.337	98.576	97.478	1.00	24.84	N
ATOM 10418	CA	ARG C 391	47.178	97.384	97.546	1.00	25.72	C
ATOM 10420	CB	ARG C 391	46.579	96.341	98.490	1.00	26.51	C
ATOM 10423	CG	ARG C 391	46.949	96.591	99.959	1.00	30.17	C
ATOM 10426	CD	ARG C 391	47.538	95.369	100.659	1.00	34.52	C
ATOM 10429	NE	ARG C 391	46.495	94.388	100.953	1.00	36.68	N
ATOM 10431	CZ	ARG C 391	46.659	93.070	100.918	1.00	39.33	C
ATOM 10432	NH1	ARG C 391	47.843	92.531	100.612	1.00	40.62	N
ATOM 10435	NH2	ARG C 391	45.626	92.278	101.197	1.00	40.10	N
ATOM 10438	C	ARG C 391	47.426	96.753	96.193	1.00	25.25	C
ATOM 10439	O	ARG C 391	48.568	96.446	95.869	1.00	25.05	O
ATOM 10440	N	VAL C 392	46.365	96.555	95.411	1.00	24.85	N
ATOM 10442	CA	VAL C 392	46.504	96.044	94.045	1.00	24.75	C
ATOM 10444	CB	VAL C 392	45.171	96.105	93.285	1.00	24.27	C
ATOM 10446	CG1	VAL C 392	45.376	95.817	91.806	1.00	23.35	C
ATOM 10450	CG2	VAL C 392	44.176	95.114	93.893	1.00	24.67	C
ATOM 10454	C	VAL C 392	47.594	96.800	93.260	1.00	25.28	C
ATOM 10455	O	VAL C 392	48.486	96.195	92.641	1.00	25.15	O
ATOM 10456	N	GLU C 393	47.527	98.126	93.315	1.00	25.77	N
ATOM 10458	CA	GLU C 393	48.458	98.997	92.592	1.00	26.33	C
ATOM 10460	CB	GLU C 393	48.068	100.462	92.839	1.00	26.81	C
ATOM 10463	CG	GLU C 393	47.907	101.265	91.580	1.00	29.12	C
ATOM 10466	CD	GLU C 393	48.204	102.719	91.801	1.00	32.89	C
ATOM 10467	OE1	GLU C 393	47.824	103.217	92.887	1.00	36.07	O
ATOM 10468	OE2	GLU C 393	48.817	103.341	90.893	1.00	34.16	O
ATOM 10469	C	GLU C 393	49.938	98.785	92.989	1.00	25.88	C
ATOM 10470	O	GLU C 393	50.835	98.834	92.132	1.00	25.58	O
ATOM 10471	N	ALA C 394	50.182	98.589	94.288	1.00	25.36	N
ATOM 10473	CA	ALA C 394	51.535	98.356	94.792	1.00	25.26	C
ATOM 10475	CB	ALA C 394	51.568	98.419	96.330	1.00	24.81	C
ATOM 10479	C	ALA C 394	52.046	97.003	94.272	1.00	25.40	C
ATOM 10480	O	ALA C 394	53.207	96.873	93.849	1.00	25.34	O
ATOM 10481	N	LEU C 395	51.152	96.011	94.270	1.00	25.29	N
ATOM 10483	CA	LEU C 395	51.459	94.696	93.742	1.00	25.18	C
ATOM 10485	CB	LEU C 395	50.328	93.728	94.052	1.00	25.30	C
ATOM 10488	CG	LEU C 395	50.153	93.445	95.542	1.00	25.72	C
ATOM 10490	CD1	LEU C 395	48.907	92.617	95.773	1.00	26.08	C
ATOM 10494	CD2	LEU C 395	51.375	92.737	96.087	1.00	26.34	C
ATOM 10498	C	LEU C 395	51.724	94.739	92.241	1.00	25.03	C
ATOM 10499	O	LEU C 395	52.545	93.964	91.744	1.00	25.02	O
ATOM 10500	N	GLN C 396	51.076	95.663	91.525	1.00	24.61	N
ATOM 10502	CA	GLN C 396	51.314	95.794	90.085	1.00	24.35	C
ATOM 10504	CB	GLN C 396	50.236	96.645	89.422	1.00	24.23	C
ATOM 10507	CG	GLN C 396	50.191	96.544	87.892	1.00	22.66	C

305

ATOM 10510	CD GLN C 396	49.352	97.620	87.265	1.00	22.51	C
ATOM 10511	OE1 GLN C 396	49.496	98.821	87.584	1.00	22.04	O
ATOM 10512	NE2 GLN C 396	48.466	97.212	86.371	1.00	23.29	N
ATOM 10515	C GLN C 396	52.666	96.407	89.785	1.00	24.63	C
ATOM 10516	O GLN C 396	53.285	96.084	88.759	1.00	24.94	O
ATOM 10517	N GLN C 397	53.106	97.279	90.694	1.00	24.56	N
ATOM 10519	CA GLN C 397	54.235	98.155	90.467	1.00	24.62	C
ATOM 10521	CB GLN C 397	54.475	99.059	91.687	1.00	25.20	C
ATOM 10524	CG GLN C 397	55.523	100.154	91.457	1.00	27.11	C
ATOM 10527	CD GLN C 397	55.510	101.237	92.539	1.00	29.65	C
ATOM 10528	OE1 GLN C 397	56.566	101.650	93.029	1.00	31.23	O
ATOM 10529	NE2 GLN C 397	54.320	101.702	92.902	1.00	31.11	N
ATOM 10532	C GLN C 397	55.510	97.425	90.056	1.00	23.90	C
ATOM 10533	O GLN C 397	56.024	97.754	89.006	1.00	24.00	O
ATOM 10534	N PRO C 398	56.018	96.449	90.834	1.00	23.14	N
ATOM 10535	CA PRO C 398	57.264	95.743	90.454	1.00	22.24	C
ATOM 10537	CB PRO C 398	57.496	94.736	91.589	1.00	22.05	C
ATOM 10540	CG PRO C 398	56.510	95.014	92.630	1.00	22.59	C
ATOM 10543	CD PRO C 398	55.483	95.960	92.118	1.00	22.92	C
ATOM 10546	C PRO C 398	57.210	95.022	89.098	1.00	21.53	C
ATOM 10547	O PRO C 398	58.276	94.799	88.495	1.00	20.78	O
ATOM 10548	N TYR C 399	56.006	94.678	88.628	1.00	20.65	N
ATOM 10550	CA TYR C 399	55.868	94.012	87.342	1.00	20.43	C
ATOM 10552	CB TYR C 399	54.560	93.228	87.297	1.00	20.06	C
ATOM 10555	CG TYR C 399	54.530	92.131	88.366	1.00	20.44	C
ATOM 10556	CD1 TYR C 399	53.732	92.251	89.492	1.00	21.47	C
ATOM 10558	CE1 TYR C 399	53.706	91.269	90.477	1.00	20.71	C
ATOM 10560	CZ TYR C 399	54.513	90.151	90.374	1.00	20.44	C
ATOM 10561	OH TYR C 399	54.516	89.169	91.407	1.00	18.00	O
ATOM 10563	CE2 TYR C 399	55.335	90.035	89.264	1.00	18.95	C
ATOM 10565	CD2 TYR C 399	55.344	91.013	88.281	1.00	18.85	C
ATOM 10567	C TYR C 399	56.039	95.010	86.195	1.00	20.63	C
ATOM 10568	O TYR C 399	56.743	94.746	85.211	1.00	20.36	O
ATOM 10569	N VAL C 400	55.444	96.184	86.349	1.00	20.87	N
ATOM 10571	CA VAL C 400	55.680	97.285	85.412	1.00	21.27	C
ATOM 10573	CB VAL C 400	54.905	98.575	85.819	1.00	21.24	C
ATOM 10575	CG1 VAL C 400	55.298	99.756	84.923	1.00	20.25	C
ATOM 10579	CG2 VAL C 400	53.373	98.316	85.790	1.00	21.27	C
ATOM 10583	C VAL C 400	57.169	97.604	85.364	1.00	21.58	C
ATOM 10584	O VAL C 400	57.742	97.744	84.283	1.00	21.31	O
ATOM 10585	N GLU C 401	57.764	97.696	86.558	1.00	22.02	N
ATOM 10587	CA GLU C 401	59.194	97.969	86.765	1.00	22.50	C
ATOM 10589	CB GLU C 401	59.504	98.070	88.271	1.00	22.71	C
ATOM 10592	CG GLU C 401	59.083	99.423	88.854	1.00	24.80	C
ATOM 10595	CD GLU C 401	59.322	99.617	90.351	1.00	26.00	C
ATOM 10596	OE1 GLU C 401	59.704	100.749	90.728	1.00	27.04	O
ATOM 10597	OE2 GLU C 401	59.095	98.680	91.149	1.00	27.07	O
ATOM 10598	C GLU C 401	60.099	96.931	86.128	1.00	22.24	C

306

ATOM 10599	O	GLU C 401	61.151	97.252	85.569	1.00	22.01	O
ATOM 10600	N	ALA C 402	59.674	95.679	86.225	1.00	22.23	N
ATOM 10602	CA	ALA C 402	60.413	94.587	85.632	1.00	21.76	C
ATOM 10604	CB	ALA C 402	59.864	93.279	86.097	1.00	21.70	C
ATOM 10608	C	ALA C 402	60.314	94.714	84.128	1.00	21.41	C
ATOM 10609	O	ALA C 402	61.321	94.663	83.449	1.00	21.22	O
ATOM 10610	N	LEU C 403	59.102	94.919	83.625	1.00	21.25	N
ATOM 10612	CA	LEU C 403	58.863	94.974	82.192	1.00	21.39	C
ATOM 10614	CB	LEU C 403	57.370	95.078	81.942	1.00	21.10	C
ATOM 10617	CG	LEU C 403	56.973	95.033	80.473	1.00	21.04	C
ATOM 10619	CD1	LEU C 403	57.618	93.868	79.759	1.00	21.23	C
ATOM 10623	CD2	LEU C 403	55.471	94.964	80.370	1.00	21.60	C
ATOM 10627	C	LEU C 403	59.593	96.155	81.508	1.00	21.83	C
ATOM 10628	O	LEU C 403	60.208	96.012	80.451	1.00	21.24	O
ATOM 10629	N	LEU C 404	59.507	97.323	82.118	1.00	22.53	N
ATOM 10631	CA	LEU C 404	60.217	98.482	81.642	1.00	23.54	C
ATOM 10633	CB	LEU C 404	60.033	99.618	82.642	1.00	23.92	C
ATOM 10636	CG	LEU C 404	60.917	100.858	82.554	1.00	25.19	C
ATOM 10638	CD1	LEU C 404	60.904	101.443	81.154	1.00	27.52	C
ATOM 10642	CD2	LEU C 404	60.411	101.860	83.553	1.00	25.81	C
ATOM 10646	C	LEU C 404	61.686	98.129	81.484	1.00	24.32	C
ATOM 10647	O	LEU C 404	62.266	98.304	80.401	1.00	24.50	O
ATOM 10648	N	SER C 405	62.264	97.610	82.573	1.00	25.23	N
ATOM 10650	CA	SER C 405	63.683	97.217	82.647	1.00	25.80	C
ATOM 10652	CB	SER C 405	63.989	96.620	84.037	1.00	26.32	C
ATOM 10655	OG	SER C 405	63.851	97.551	85.112	1.00	27.50	O
ATOM 10657	C	SER C 405	64.093	96.188	81.569	1.00	25.70	C
ATOM 10658	O	SER C 405	65.128	96.317	80.915	1.00	25.38	O
ATOM 10659	N	TYR C 406	63.262	95.170	81.399	1.00	25.90	N
ATOM 10661	CA	TYR C 406	63.587	94.041	80.545	1.00	26.24	C
ATOM 10663	CB	TYR C 406	62.589	92.906	80.769	1.00	25.52	C
ATOM 10666	CG	TYR C 406	62.786	91.683	79.898	1.00	24.35	C
ATOM 10667	CD1	TYR C 406	63.429	90.548	80.382	1.00	24.04	C
ATOM 10669	CE1	TYR C 406	63.586	89.422	79.584	1.00	22.32	C
ATOM 10671	CZ	TYR C 406	63.093	89.428	78.315	1.00	20.54	C
ATOM 10672	OH	TYR C 406	63.237	88.326	77.543	1.00	21.00	O
ATOM 10674	CE2	TYR C 406	62.449	90.516	77.819	1.00	20.39	C
ATOM 10676	CD2	TYR C 406	62.296	91.638	78.605	1.00	21.70	C
ATOM 10678	C	TYR C 406	63.621	94.467	79.082	1.00	27.56	C
ATOM 10679	O	TYR C 406	64.556	94.101	78.365	1.00	27.64	O
ATOM 10680	N	THR C 407	62.614	95.239	78.656	1.00	29.01	N
ATOM 10682	CA	THR C 407	62.495	95.714	77.266	1.00	30.12	C
ATOM 10684	CB	THR C 407	61.170	96.471	77.044	1.00	29.66	C
ATOM 10686	OG1	THR C 407	60.979	97.458	78.066	1.00	27.76	O
ATOM 10688	CG2	THR C 407	59.974	95.548	77.183	1.00	29.40	C
ATOM 10692	C	THR C 407	63.650	96.643	76.900	1.00	32.37	C
ATOM 10693	O	THR C 407	64.193	96.578	75.785	1.00	32.25	O
ATOM 10694	N	ARG C 408	64.029	97.489	77.859	1.00	34.93	N

307

ATOM 10696	CA ARG C 408	65.144	98.405	77.680	1.00	37.43	C
ATOM 10698	CB ARG C 408	65.228	99.405	78.845	1.00	37.99	C
ATOM 10701	CG ARG C 408	64.875	100.860	78.411	1.00	40.93	C
ATOM 10704	CD ARG C 408	65.857	101.952	78.909	1.00	44.75	C
ATOM 10707	NE ARG C 408	65.166	103.150	79.413	1.00	48.25	N
ATOM 10709	CZ ARG C 408	64.328	103.186	80.468	1.00	50.24	C
ATOM 10710	NH1 ARG C 408	64.050	102.084	81.167	1.00	51.53	N
ATOM 10713	NH2 ARG C 408	63.761	104.338	80.829	1.00	50.42	N
ATOM 10716	C ARG C 408	66.472	97.656	77.487	1.00	38.95	C
ATOM 10717	O ARG C 408	67.464	98.246	77.036	1.00	38.99	O
ATOM 10718	N ILE C 409	66.469	96.363	77.844	1.00	40.77	N
ATOM 10720	CA ILE C 409	67.505	95.391	77.447	1.00	41.64	C
ATOM 10722	CB ILE C 409	67.941	94.592	78.681	1.00	41.57	C
ATOM 10724	CG1 ILE C 409	68.996	95.419	79.458	1.00	41.47	C
ATOM 10727	CD1 ILE C 409	68.633	95.819	80.891	1.00	40.71	C
ATOM 10731	CG2 ILE C 409	68.462	93.204	78.282	1.00	41.94	C
ATOM 10735	C ILE C 409	67.124	94.508	76.203	1.00	42.62	C
ATOM 10736	O ILE C 409	67.655	94.771	75.127	1.00	42.69	O
ATOM 10737	N LYS C 410	66.235	93.507	76.304	1.00	43.56	N
ATOM 10739	CA LYS C 410	65.826	92.736	75.101	1.00	44.44	C
ATOM 10741	CB LYS C 410	64.316	92.360	75.087	1.00	44.79	C
ATOM 10744	CG LYS C 410	63.734	92.042	73.657	1.00	44.91	C
ATOM 10747	CD LYS C 410	62.604	91.015	73.645	1.00	44.67	C
ATOM 10750	CE LYS C 410	62.061	90.789	72.233	1.00	44.52	C
ATOM 10753	NZ LYS C 410	61.779	89.348	71.938	1.00	44.64	N
ATOM 10757	C LYS C 410	66.179	93.500	73.814	1.00	44.90	C
ATOM 10758	O LYS C 410	67.136	93.128	73.119	1.00	45.15	O
ATOM 10759	N ARG C 411	65.407	94.547	73.494	1.00	45.25	N
ATOM 10761	CA ARG C 411	65.760	95.467	72.394	1.00	45.54	C
ATOM 10763	CB ARG C 411	64.745	95.430	71.223	1.00	45.91	C
ATOM 10766	CG ARG C 411	64.244	94.020	70.836	1.00	47.88	C
ATOM 10769	CD ARG C 411	63.762	93.849	69.363	1.00	50.08	C
ATOM 10772	NE ARG C 411	62.572	92.977	69.270	1.00	51.85	N
ATOM 10774	CZ ARG C 411	61.801	92.834	68.182	1.00	52.30	C
ATOM 10775	NH1 ARG C 411	62.081	93.503	67.058	1.00	51.46	N
ATOM 10778	NH2 ARG C 411	60.740	92.014	68.221	1.00	51.88	N
ATOM 10781	C ARG C 411	65.895	96.879	72.989	1.00	44.58	C
ATOM 10782	O ARG C 411	64.907	97.516	73.337	1.00	44.52	O
ATOM 10783	N PRO C 412	67.118	97.353	73.146	1.00	43.52	N
ATOM 10784	CA PRO C 412	67.335	98.711	73.656	1.00	42.85	C
ATOM 10786	CB PRO C 412	68.805	98.683	74.111	1.00	43.05	C
ATOM 10789	CG PRO C 412	69.259	97.234	73.954	1.00	43.40	C
ATOM 10792	CD PRO C 412	68.390	96.661	72.874	1.00	43.60	C
ATOM 10795	C PRO C 412	67.115	99.809	72.599	1.00	41.83	C
ATOM 10796	O PRO C 412	66.999	100.982	72.974	1.00	41.57	O
ATOM 10797	N GLN C 413	67.063	99.434	71.317	1.00	40.57	N
ATOM 10799	CA GLN C 413	66.860	100.396	70.224	1.00	39.64	C
ATOM 10801	CB GLN C 413	67.788	100.061	69.050	1.00	39.85	C

308

ATOM 10804	CG	GLN C 413	69.160	100.752	69.130	1.00	40.39	C
ATOM 10807	CD	GLN C 413	70.065	100.359	67.981	1.00	41.42	C
ATOM 10808	OE1	GLN C 413	70.388	101.181	67.112	1.00	41.02	O
ATOM 10809	NE2	GLN C 413	70.463	99.089	67.961	1.00	42.51	N
ATOM 10812	C	GLN C 413	65.394	100.517	69.745	1.00	38.41	C
ATOM 10813	O	GLN C 413	65.066	101.360	68.918	1.00	38.15	O
ATOM 10814	N	ASP C 414	64.517	99.678	70.269	1.00	37.13	N
ATOM 10816	CA	ASP C 414	63.091	99.851	70.068	1.00	36.31	C
ATOM 10818	CB	ASP C 414	62.430	98.498	69.769	1.00	36.47	C
ATOM 10821	CG	ASP C 414	60.990	98.624	69.258	1.00	36.99	C
ATOM 10822	OD1	ASP C 414	60.686	99.568	68.493	1.00	36.52	O
ATOM 10823	OD2	ASP C 414	60.094	97.791	69.556	1.00	39.00	O
ATOM 10824	C	ASP C 414	62.533	100.505	71.335	1.00	35.41	C
ATOM 10825	O	ASP C 414	61.839	99.879	72.131	1.00	35.23	O
ATOM 10826	N	GLN C 415	62.872	101.776	71.522	1.00	34.39	N
ATOM 10828	CA	GLN C 415	62.339	102.570	72.629	1.00	33.63	C
ATOM 10830	CB	GLN C 415	62.682	104.044	72.436	1.00	33.86	C
ATOM 10833	CG	GLN C 415	62.339	104.583	71.048	1.00	35.40	C
ATOM 10836	CD	GLN C 415	62.266	106.094	71.022	1.00	38.18	C
ATOM 10837	OE1	GLN C 415	62.561	106.742	72.048	1.00	39.96	O
ATOM 10838	NE2	GLN C 415	61.875	106.672	69.860	1.00	36.76	N
ATOM 10841	C	GLN C 415	60.832	102.451	72.799	1.00	32.52	C
ATOM 10842	O	GLN C 415	60.351	102.422	73.927	1.00	32.48	O
ATOM 10843	N	LEU C 416	60.100	102.362	71.683	1.00	31.46	N
ATOM 10845	CA	LEU C 416	58.622	102.381	71.682	1.00	30.61	C
ATOM 10847	CB	LEU C 416	58.084	102.868	70.329	1.00	30.36	C
ATOM 10850	CG	LEU C 416	58.189	104.381	70.082	1.00	30.01	C
ATOM 10852	CD1	LEU C 416	57.722	104.728	68.657	1.00	29.67	C
ATOM 10856	CD2	LEU C 416	57.417	105.197	71.141	1.00	28.54	C
ATOM 10860	C	LEU C 416	57.962	101.053	72.001	1.00	30.03	C
ATOM 10861	O	LEU C 416	56.763	100.887	71.787	1.00	29.86	O
ATOM 10862	N	ARG C 417	58.745	100.120	72.530	1.00	29.46	N
ATOM 10864	CA	ARG C 417	58.312	98.747	72.691	1.00	28.84	C
ATOM 10866	CB	ARG C 417	59.532	97.849	72.832	1.00	29.00	C
ATOM 10869	CG	ARG C 417	59.152	96.410	72.839	1.00	30.27	C
ATOM 10872	CD	ARG C 417	60.296	95.455	72.695	1.00	30.86	C
ATOM 10875	NE	ARG C 417	59.780	94.091	72.736	1.00	30.70	N
ATOM 10877	CZ	ARG C 417	59.188	93.482	71.728	1.00	29.97	C
ATOM 10878	NH1	ARG C 417	59.039	94.098	70.562	1.00	30.02	N
ATOM 10881	NH2	ARG C 417	58.759	92.243	71.884	1.00	29.81	N
ATOM 10884	C	ARG C 417	57.446	98.640	73.935	1.00	27.85	C
ATOM 10885	O	ARG C 417	56.313	98.169	73.891	1.00	27.41	O
ATOM 10886	N	PHE C 418	58.001	99.090	75.050	1.00	26.77	N
ATOM 10888	CA	PHE C 418	57.244	99.151	76.292	1.00	26.02	C
ATOM 10890	CB	PHE C 418	58.124	99.790	77.366	1.00	26.07	C
ATOM 10893	CG	PHE C 418	57.465	99.951	78.695	1.00	26.71	C
ATOM 10894	CD1	PHE C 418	56.972	98.859	79.379	1.00	28.37	C
ATOM 10896	CE1	PHE C 418	56.381	99.019	80.637	1.00	28.78	C

309

ATOM 10898	CZ PHE C 418	56.311	100.272	81.214	1.00	28.66	C
ATOM 10900	CE2 PHE C 418	56.797	101.363	80.532	1.00	28.52	C
ATOM 10902	CD2 PHE C 418	57.376	101.200	79.288	1.00	28.05	C
ATOM 10904	C PHE C 418	55.865	99.856	76.101	1.00	24.94	C
ATOM 10905	O PHE C 418	54.833	99.207	76.253	1.00	24.89	O
ATOM 10906	N PRO C 419	55.829	101.136	75.726	1.00	23.51	N
ATOM 10907	CA PRO C 419	54.547	101.788	75.485	1.00	22.93	C
ATOM 10909	CB PRO C 419	54.936	103.158	74.911	1.00	22.79	C
ATOM 10912	CG PRO C 419	56.367	103.140	74.728	1.00	22.59	C
ATOM 10915	CD PRO C 419	56.955	102.053	75.499	1.00	23.02	C
ATOM 10918	C PRO C 419	53.657	101.003	74.512	1.00	22.59	C
ATOM 10919	O PRO C 419	52.470	100.964	74.739	1.00	21.78	O
ATOM 10920	N ARG C 420	54.204	100.364	73.489	1.00	22.69	N
ATOM 10922	CA ARG C 420	53.374	99.531	72.612	1.00	23.38	C
ATOM 10924	CB ARG C 420	54.168	98.976	71.439	1.00	23.63	C
ATOM 10927	CG ARG C 420	54.203	99.911	70.269	1.00	26.56	C
ATOM 10930	CD ARG C 420	55.015	99.395	69.093	1.00	30.48	C
ATOM 10933	NE ARG C 420	55.047	100.353	67.994	1.00	31.76	N
ATOM 10935	CZ ARG C 420	56.150	100.877	67.508	1.00	35.20	C
ATOM 10936	NH1 ARG C 420	57.327	100.526	68.022	1.00	37.26	N
ATOM 10939	NH2 ARG C 420	56.089	101.755	66.508	1.00	35.48	N
ATOM 10942	C ARG C 420	52.690	98.382	73.340	1.00	23.13	C
ATOM 10943	O ARG C 420	51.501	98.192	73.181	1.00	23.66	O
ATOM 10944	N MET C 421	53.427	97.613	74.123	1.00	22.82	N
ATOM 10946	CA MET C 421	52.833	96.546	74.923	1.00	23.10	C
ATOM 10948	CB MET C 421	53.911	95.828	75.737	1.00	23.53	C
ATOM 10951	CG MET C 421	54.814	94.952	74.908	1.00	24.77	C
ATOM 10954	SD MET C 421	56.279	94.651	75.816	1.00	25.81	S
ATOM 10955	CE MET C 421	55.712	93.498	76.830	1.00	30.07	C
ATOM 10959	C MET C 421	51.756	97.005	75.914	1.00	22.88	C
ATOM 10960	O MET C 421	50.753	96.313	76.104	1.00	22.80	O
ATOM 10961	N LEU C 422	51.977	98.132	76.583	1.00	22.36	N
ATOM 10963	CA LEU C 422	51.009	98.616	77.541	1.00	22.39	C
ATOM 10965	CB LEU C 422	51.574	99.783	78.335	1.00	23.02	C
ATOM 10968	CG LEU C 422	52.762	99.540	79.273	1.00	23.86	C
ATOM 10970	CD1 LEU C 422	53.371	100.881	79.647	1.00	24.96	C
ATOM 10974	CD2 LEU C 422	52.356	98.814	80.491	1.00	23.97	C
ATOM 10978	C LEU C 422	49.721	99.053	76.849	1.00	22.31	C
ATOM 10979	O LEU C 422	48.625	98.900	77.408	1.00	22.34	O
ATOM 10980	N MET C 423	49.850	99.605	75.641	1.00	21.88	N
ATOM 10982	CA MET C 423	48.697	100.067	74.869	1.00	21.52	C
ATOM 10984	CB MET C 423	49.110	100.766	73.558	1.00	22.01	C
ATOM 10987	CG MET C 423	49.774	102.117	73.701	1.00	24.76	C
ATOM 10990	SD MET C 423	48.657	103.496	74.017	1.00	31.13	S
ATOM 10991	CE MET C 423	48.560	103.343	75.702	1.00	33.55	C
ATOM 10995	C MET C 423	47.827	98.884	74.539	1.00	20.24	C
ATOM 10996	O MET C 423	46.648	99.035	74.349	1.00	19.37	O
ATOM 10997	N LYS C 424	48.413	97.705	74.440	1.00	19.65	N

310

ATOM 10999	CA	LYS C 424	47.597	96.507	74.262	1.00	20.04	C
ATOM 11001	CB	LYS C 424	48.463	95.272	73.967	1.00	20.40	C
ATOM 11004	CG	LYS C 424	49.280	95.397	72.697	1.00	20.67	C
ATOM 11007	CD	LYS C 424	48.381	95.612	71.561	1.00	23.11	C
ATOM 11010	CE	LYS C 424	49.066	95.450	70.262	1.00	25.92	C
ATOM 11013	NZ	LYS C 424	48.621	96.506	69.295	1.00	27.86	N
ATOM 11017	C	LYS C 424	46.643	96.245	75.439	1.00	19.40	C
ATOM 11018	O	LYS C 424	45.559	95.758	75.216	1.00	19.42	O
ATOM 11019	N	LEU C 425	47.035	96.569	76.664	1.00	18.89	N
ATOM 11021	CA	LEU C 425	46.104	96.544	77.786	1.00	19.22	C
ATOM 11023	CB	LEU C 425	46.748	97.006	79.113	1.00	19.39	C
ATOM 11026	CG	LEU C 425	48.042	96.310	79.577	1.00	20.01	C
ATOM 11028	CD1	LEU C 425	48.628	96.958	80.790	1.00	20.39	C
ATOM 11032	CD2	LEU C 425	47.800	94.848	79.833	1.00	20.80	C
ATOM 11036	C	LEU C 425	44.901	97.422	77.495	1.00	19.35	C
ATOM 11037	O	LEU C 425	43.777	97.057	77.841	1.00	20.43	O
ATOM 11038	N	VAL C 426	45.114	98.581	76.877	1.00	18.93	N
ATOM 11040	CA	VAL C 426	43.998	99.449	76.508	1.00	18.25	C
ATOM 11042	CB	VAL C 426	44.463	100.753	75.869	1.00	17.72	C
ATOM 11044	CG1	VAL C 426	43.305	101.664	75.634	1.00	17.87	C
ATOM 11048	CG2	VAL C 426	45.431	101.441	76.728	1.00	17.62	C
ATOM 11052	C	VAL C 426	43.060	98.702	75.544	1.00	18.59	C
ATOM 11053	O	VAL C 426	41.866	98.691	75.740	1.00	18.88	O
ATOM 11054	N	SER C 427	43.589	98.055	74.522	1.00	18.98	N
ATOM 11056	CA	SER C 427	42.762	97.244	73.626	1.00	19.96	C
ATOM 11058	CB	SER C 427	43.615	96.702	72.494	1.00	20.17	C
ATOM 11061	OG	SER C 427	44.168	97.785	71.753	1.00	23.61	O
ATOM 11063	C	SER C 427	42.054	96.068	74.305	1.00	20.13	C
ATOM 11064	O	SER C 427	40.925	95.759	73.969	1.00	20.62	O
ATOM 11065	N	LEU C 428	42.718	95.405	75.249	1.00	20.31	N
ATOM 11067	CA	LEU C 428	42.133	94.265	75.939	1.00	20.50	C
ATOM 11069	CB	LEU C 428	43.143	93.575	76.818	1.00	20.04	C
ATOM 11072	CG	LEU C 428	44.127	92.748	75.990	1.00	20.36	C
ATOM 11074	CD1	LEU C 428	45.361	92.391	76.836	1.00	20.66	C
ATOM 11078	CD2	LEU C 428	43.481	91.488	75.392	1.00	19.60	C
ATOM 11082	C	LEU C 428	40.932	94.658	76.778	1.00	21.54	C
ATOM 11083	O	LEU C 428	40.072	93.821	77.048	1.00	22.14	O
ATOM 11084	N	ARG C 429	40.836	95.929	77.155	1.00	22.26	N
ATOM 11086	CA	ARG C 429	39.649	96.408	77.855	1.00	22.80	C
ATOM 11088	CB	ARG C 429	39.888	97.775	78.466	1.00	22.76	C
ATOM 11091	CG	ARG C 429	40.774	97.734	79.595	1.00	22.71	C
ATOM 11094	CD	ARG C 429	40.192	97.040	80.807	1.00	22.42	C
ATOM 11097	NE	ARG C 429	41.209	97.025	81.856	1.00	21.48	N
ATOM 11099	CZ	ARG C 429	41.181	97.742	82.964	1.00	18.67	C
ATOM 11100	NH1	ARG C 429	40.154	98.517	83.256	1.00	18.19	N
ATOM 11103	NH2	ARG C 429	42.184	97.631	83.811	1.00	19.10	N
ATOM 11106	C	ARG C 429	38.472	96.516	76.929	1.00	23.20	C
ATOM 11107	O	ARG C 429	37.347	96.174	77.309	1.00	24.13	O

311

ATOM 11108 N THR C 430	38.708	97.050	75.741	1.00	23.13	N
ATOM 11110 CA THR C 430	37.625	97.177	74.792	1.00	23.58	C
ATOM 11112 CB THR C 430	38.035	98.089	73.602	1.00	24.17	C
ATOM 11114 OG1 THR C 430	38.077	99.451	74.041	1.00	24.20	O
ATOM 11116 CG2 THR C 430	36.957	98.078	72.485	1.00	24.77	C
ATOM 11120 C THR C 430	37.213	95.773	74.332	1.00	23.10	C
ATOM 11121 O THR C 430	36.038	95.475	74.228	1.00	22.85	O
ATOM 11122 N LEU C 431	38.178	94.896	74.095	1.00	22.68	N
ATOM 11124 CA LEU C 431	37.847	93.547	73.642	1.00	22.67	C
ATOM 11126 CB LEU C 431	39.108	92.776	73.221	1.00	22.51	C
ATOM 11129 CG LEU C 431	39.777	93.235	71.926	1.00	21.41	C
ATOM 11131 CD1 LEU C 431	41.229	92.866	71.902	1.00	20.87	C
ATOM 11135 CD2 LEU C 431	39.119	92.608	70.753	1.00	22.33	C
ATOM 11139 C LEU C 431	37.040	92.784	74.710	1.00	22.32	C
ATOM 11140 O LEU C 431	36.163	92.006	74.381	1.00	21.48	O
ATOM 11141 N SER C 432	37.320	93.048	75.977	1.00	22.37	N
ATOM 11143 CA SER C 432	36.553	92.468	77.084	1.00	22.86	C
ATOM 11145 CB SER C 432	37.152	92.941	78.409	1.00	22.68	C
ATOM 11148 OG SER C 432	36.399	92.501	79.500	1.00	24.39	O
ATOM 11150 C SER C 432	35.060	92.824	76.994	1.00	22.96	C
ATOM 11151 O SER C 432	34.193	91.959	77.149	1.00	22.80	O
ATOM 11152 N SER C 433	34.775	94.095	76.727	1.00	23.08	N
ATOM 11154 CA SER C 433	33.417	94.548	76.439	1.00	23.57	C
ATOM 11156 CB SER C 433	33.391	96.032	76.104	1.00	23.61	C
ATOM 11159 OG SER C 433	33.570	96.801	77.267	1.00	27.21	O
ATOM 11161 C SER C 433	32.809	93.845	75.263	1.00	23.69	C
ATOM 11162 O SER C 433	31.679	93.410	75.333	1.00	24.17	O
ATOM 11163 N VAL C 434	33.543	93.770	74.158	1.00	23.72	N
ATOM 11165 CA VAL C 434	33.012	93.189	72.947	1.00	23.55	C
ATOM 11167 CB VAL C 434	34.014	93.293	71.790	1.00	23.82	C
ATOM 11169 CG1 VAL C 434	33.522	92.577	70.549	1.00	24.73	C
ATOM 11173 CG2 VAL C 434	34.210	94.724	71.434	1.00	23.97	C
ATOM 11177 C VAL C 434	32.630	91.752	73.247	1.00	23.22	C
ATOM 11178 O VAL C 434	31.640	91.258	72.725	1.00	23.33	O
ATOM 11179 N HIS C 435	33.381	91.105	74.134	1.00	23.17	N
ATOM 11181 CA HIS C 435	33.095	89.722	74.541	1.00	23.00	C
ATOM 11183 CB HIS C 435	34.271	89.100	75.309	1.00	22.54	C
ATOM 11186 CG HIS C 435	33.997	87.712	75.770	1.00	21.09	C
ATOM 11187 ND1 HIS C 435	33.873	87.382	77.097	1.00	20.17	N
ATOM 11189 CE1 HIS C 435	33.587	86.100	77.207	1.00	20.60	C
ATOM 11191 NE2 HIS C 435	33.481	85.596	75.995	1.00	21.20	N
ATOM 11193 CD2 HIS C 435	33.732	86.585	75.078	1.00	21.14	C
ATOM 11195 C HIS C 435	31.795	89.622	75.358	1.00	23.30	C
ATOM 11196 O HIS C 435	30.950	88.751	75.106	1.00	23.08	O
ATOM 11197 N SER C 436	31.624	90.523	76.313	1.00	23.61	N
ATOM 11199 CA SER C 436	30.348	90.644	77.026	1.00	24.19	C
ATOM 11201 CB SER C 436	30.412	91.801	78.033	1.00	23.96	C
ATOM 11204 OG SER C 436	31.376	91.512	79.061	1.00	25.95	O

312

ATOM 11206	C	SER C 436	29.137	90.794	76.086	1.00	24.55	C
ATOM 11207	O	SER C 436	28.107	90.189	76.304	1.00	24.85	O
ATOM 11208	N	GLU C 437	29.270	91.566	75.018	1.00	25.17	N
ATOM 11210	CA	GLU C 437	28.182	91.721	74.060	1.00	25.38	C
ATOM 11212	CB	GLU C 437	28.445	92.896	73.113	1.00	26.09	C
ATOM 11215	CG	GLU C 437	28.585	94.242	73.846	1.00	29.84	C
ATOM 11218	CD	GLU C 437	29.059	95.406	72.951	1.00	35.02	C
ATOM 11219	OE1	GLU C 437	28.537	96.536	73.136	1.00	38.26	O
ATOM 11220	OE2	GLU C 437	29.945	95.214	72.065	1.00	37.73	O
ATOM 11221	C	GLU C 437	27.946	90.439	73.280	1.00	24.04	C
ATOM 11222	O	GLU C 437	26.836	90.146	72.933	1.00	24.34	O
ATOM 11223	N	GLN C 438	28.991	89.682	73.011	1.00	23.03	N
ATOM 11225	CA	GLN C 438	28.870	88.392	72.345	1.00	22.31	C
ATOM 11227	CB	GLN C 438	30.260	87.855	72.023	1.00	22.24	C
ATOM 11230	CG	GLN C 438	30.306	86.428	71.474	1.00	21.39	C
ATOM 11233	CD	GLN C 438	29.680	86.321	70.112	1.00	21.22	C
ATOM 11234	OE1	GLN C 438	30.380	86.346	69.096	1.00	21.68	O
ATOM 11235	NE2	GLN C 438	28.363	86.200	70.077	1.00	20.20	N
ATOM 11238	C	GLN C 438	28.170	87.374	73.209	1.00	22.57	C
ATOM 11239	O	GLN C 438	27.448	86.542	72.707	1.00	22.01	O
ATOM 11240	N	VAL C 439	28.427	87.425	74.514	1.00	23.28	N
ATOM 11242	CA	VAL C 439	27.872	86.477	75.476	1.00	23.42	C
ATOM 11244	CB	VAL C 439	28.555	86.642	76.880	1.00	23.00	C
ATOM 11246	CG1	VAL C 439	27.799	85.909	77.962	1.00	22.05	C
ATOM 11250	CG2	VAL C 439	29.994	86.150	76.831	1.00	22.25	C
ATOM 11254	C	VAL C 439	26.369	86.703	75.560	1.00	24.45	C
ATOM 11255	O	VAL C 439	25.580	85.759	75.508	1.00	24.80	O
ATOM 11256	N	PHE C 440	25.996	87.972	75.683	1.00	25.55	N
ATOM 11258	CA	PHE C 440	24.601	88.411	75.700	1.00	26.37	C
ATOM 11260	CB	PHE C 440	24.529	89.929	75.994	1.00	26.69	C
ATOM 11263	CG	PHE C 440	23.247	90.599	75.550	1.00	29.64	C
ATOM 11264	CD1	PHE C 440	22.212	90.846	76.475	1.00	31.80	C
ATOM 11266	CE1	PHE C 440	21.032	91.452	76.082	1.00	31.89	C
ATOM 11268	CZ	PHE C 440	20.858	91.834	74.742	1.00	33.13	C
ATOM 11270	CE2	PHE C 440	21.869	91.605	73.808	1.00	32.53	C
ATOM 11272	CD2	PHE C 440	23.072	91.000	74.217	1.00	31.85	C
ATOM 11274	C	PHE C 440	23.925	88.041	74.378	1.00	26.30	C
ATOM 11275	O	PHE C 440	22.802	87.550	74.383	1.00	26.75	O
ATOM 11276	N	ALA C 441	24.602	88.260	73.256	1.00	26.40	N
ATOM 11278	CA	ALA C 441	24.084	87.849	71.937	1.00	26.57	C
ATOM 11280	CB	ALA C 441	25.089	88.169	70.814	1.00	26.19	C
ATOM 11284	C	ALA C 441	23.737	86.366	71.910	1.00	26.95	C
ATOM 11285	O	ALA C 441	22.739	85.974	71.341	1.00	27.04	O
ATOM 11286	N	LEU C 442	24.563	85.553	72.548	1.00	27.68	N
ATOM 11288	CA	LEU C 442	24.405	84.115	72.513	1.00	28.09	C
ATOM 11290	CB	LEU C 442	25.705	83.446	72.953	1.00	28.18	C
ATOM 11293	CG	LEU C 442	26.805	83.488	71.897	1.00	27.85	C
ATOM 11295	CD1	LEU C 442	28.176	83.211	72.498	1.00	26.93	C

313

ATOM 11299	CD2 LEU C 442	26.486	82.474	70.801	1.00	29.66	C
ATOM 11303	C LEU C 442	23.246	83.654	73.383	1.00	28.80	C
ATOM 11304	O LEU C 442	22.641	82.644	73.101	1.00	28.43	O
ATOM 11305	N ARG C 443	22.943	84.404	74.436	1.00	30.18	N
ATOM 11307	CA ARG C 443	21.785	84.137	75.303	1.00	31.15	C
ATOM 11309	CB ARG C 443	21.807	85.082	76.515	1.00	31.37	C
ATOM 11312	CG ARG C 443	23.031	84.919	77.410	1.00	33.62	C
ATOM 11315	CD ARG C 443	22.787	85.087	78.902	1.00	36.68	C
ATOM 11318	NE ARG C 443	21.711	84.218	79.389	1.00	38.98	N
ATOM 11320	CZ ARG C 443	21.560	83.799	80.649	1.00	40.80	C
ATOM 11321	NH1 ARG C 443	22.414	84.141	81.614	1.00	41.65	N
ATOM 11324	NH2 ARG C 443	20.527	83.023	80.944	1.00	41.03	N
ATOM 11327	C ARG C 443	20.461	84.303	74.550	1.00	31.48	C
ATOM 11328	O ARG C 443	19.476	83.632	74.832	1.00	31.71	O
ATOM 11329	N LEU C 444	20.440	85.216	73.593	1.00	32.22	N
ATOM 11331	CA LEU C 444	19.275	85.391	72.735	1.00	32.49	C
ATOM 11333	CB LEU C 444	19.263	86.791	72.088	1.00	32.71	C
ATOM 11336	CG LEU C 444	19.608	88.050	72.915	1.00	33.52	C
ATOM 11338	CD1 LEU C 444	19.703	89.258	71.979	1.00	33.88	C
ATOM 11342	CD2 LEU C 444	18.645	88.336	74.081	1.00	33.13	C
ATOM 11346	C LEU C 444	19.174	84.304	71.650	1.00	32.21	C
ATOM 11347	O LEU C 444	18.157	84.220	71.011	1.00	32.73	O
ATOM 11348	N GLN C 445	20.207	83.495	71.422	1.00	32.00	N
ATOM 11350	CA GLN C 445	20.088	82.295	70.574	1.00	32.03	C
ATOM 11352	CB GLN C 445	21.333	82.109	69.714	1.00	32.11	C
ATOM 11355	CG GLN C 445	21.583	83.152	68.654	1.00	32.95	C
ATOM 11358	CD GLN C 445	23.080	83.312	68.378	1.00	35.56	C
ATOM 11359	OE1 GLN C 445	23.633	84.409	68.550	1.00	37.57	O
ATOM 11360	NE2 GLN C 445	23.747	82.212	67.993	1.00	35.16	N
ATOM 11363	C GLN C 445	19.881	81.006	71.400	1.00	32.02	C
ATOM 11364	O GLN C 445	20.138	79.892	70.920	1.00	31.71	O
ATOM 11365	N ASP C 446	19.411	81.174	72.637	1.00	32.13	N
ATOM 11367	CA ASP C 446	19.342	80.111	73.653	1.00	32.17	C
ATOM 11369	CB ASP C 446	18.143	79.189	73.380	1.00	32.55	C
ATOM 11372	CG ASP C 446	16.862	79.694	74.031	1.00	34.14	C
ATOM 11373	OD1 ASP C 446	16.670	80.933	74.083	1.00	35.83	O
ATOM 11374	OD2 ASP C 446	15.992	78.929	74.510	1.00	35.63	O
ATOM 11375	C ASP C 446	20.627	79.286	73.866	1.00	31.43	C
ATOM 11376	O ASP C 446	20.552	78.140	74.286	1.00	32.15	O
ATOM 11377	N LYS C 447	21.793	79.869	73.592	1.00	30.34	N
ATOM 11379	CA LYS C 447	23.091	79.250	73.891	1.00	29.31	C
ATOM 11381	CB LYS C 447	24.023	79.305	72.675	1.00	29.61	C
ATOM 11384	CG LYS C 447	23.320	78.828	71.384	1.00	32.16	C
ATOM 11387	CD LYS C 447	24.207	77.982	70.451	1.00	34.89	C
ATOM 11390	CE LYS C 447	24.630	78.733	69.176	1.00	35.99	C
ATOM 11393	NZ LYS C 447	26.113	78.642	68.909	1.00	36.81	N
ATOM 11397	C LYS C 447	23.687	79.970	75.089	1.00	27.49	C
ATOM 11398	O LYS C 447	24.207	81.067	74.960	1.00	26.86	O

ATOM 11399	N	LYS C 448	23.566	79.337	76.260	1.00	25.77	N
ATOM 11401	CA	LYS C 448	23.990	79.901	77.547	1.00	24.04	C
ATOM 11403	CB	LYS C 448	22.863	79.739	78.584	1.00	24.27	C
ATOM 11406	CG	LYS C 448	21.498	80.363	78.155	1.00	25.53	C
ATOM 11409	CD	LYS C 448	20.343	80.087	79.162	1.00	26.43	C
ATOM 11412	CE	LYS C 448	18.949	79.916	78.473	1.00	26.81	C
ATOM 11415	NZ	LYS C 448	17.814	79.670	79.440	1.00	25.41	N
ATOM 11419	C	LYS C 448	25.278	79.239	78.044	1.00	21.92	C
ATOM 11420	O	LYS C 448	25.595	78.115	77.704	1.00	21.75	O
ATOM 11421	N	LEU C 449	26.031	79.947	78.857	1.00	19.78	N
ATOM 11423	CA	LEU C 449	27.305	79.422	79.319	1.00	18.23	C
ATOM 11425	CB	LEU C 449	28.199	80.556	79.849	1.00	18.32	C
ATOM 11428	CG	LEU C 449	28.668	81.644	78.858	1.00	18.67	C
ATOM 11430	CD1	LEU C 449	29.337	82.783	79.629	1.00	20.33	C
ATOM 11434	CD2	LEU C 449	29.635	81.123	77.812	1.00	18.73	C
ATOM 11438	C	LEU C 449	27.085	78.365	80.390	1.00	16.30	C
ATOM 11439	O	LEU C 449	26.057	78.370	81.055	1.00	16.20	O
ATOM 11440	N	PRO C 450	28.045	77.461	80.551	1.00	14.39	N
ATOM 11441	CA	PRO C 450	28.007	76.492	81.634	1.00	13.54	C
ATOM 11443	CB	PRO C 450	28.971	75.405	81.153	1.00	13.19	C
ATOM 11446	CG	PRO C 450	29.946	76.115	80.341	1.00	13.88	C
ATOM 11449	CD	PRO C 450	29.242	77.273	79.717	1.00	14.55	C
ATOM 11452	C	PRO C 450	28.494	77.134	82.922	1.00	13.00	C
ATOM 11453	O	PRO C 450	29.233	78.116	82.862	1.00	12.36	O
ATOM 11454	N	PRO C 451	28.119	76.569	84.064	1.00	12.74	N
ATOM 11455	CA	PRO C 451	28.390	77.181	85.377	1.00	13.15	C
ATOM 11457	CB	PRO C 451	28.197	76.012	86.336	1.00	12.67	C
ATOM 11460	CG	PRO C 451	27.162	75.186	85.671	1.00	12.39	C
ATOM 11463	CD	PRO C 451	27.439	75.269	84.197	1.00	12.16	C
ATOM 11466	C	PRO C 451	29.772	77.833	85.611	1.00	14.02	C
ATOM 11467	O	PRO C 451	29.823	78.916	86.195	1.00	13.72	O
ATOM 11468	N	LEU C 452	30.867	77.208	85.183	1.00	14.95	N
ATOM 11470	CA	LEU C 452	32.181	77.737	85.516	1.00	15.64	C
ATOM 11472	CB	LEU C 452	33.287	76.744	85.169	1.00	16.26	C
ATOM 11475	CG	LEU C 452	34.560	77.001	86.002	1.00	19.48	C
ATOM 11477	CD1	LEU C 452	34.435	76.290	87.347	1.00	21.20	C
ATOM 11481	CD2	LEU C 452	35.849	76.582	85.298	1.00	21.90	C
ATOM 11485	C	LEU C 452	32.454	79.050	84.810	1.00	15.44	C
ATOM 11486	O	LEU C 452	33.200	79.885	85.315	1.00	15.20	O
ATOM 11487	N	LEU C 453	31.882	79.190	83.618	1.00	15.57	N
ATOM 11489	CA	LEU C 453	32.088	80.352	82.774	1.00	15.79	C
ATOM 11491	CB	LEU C 453	32.095	79.949	81.291	1.00	15.70	C
ATOM 11494	CG	LEU C 453	33.186	78.997	80.762	1.00	14.82	C
ATOM 11496	CD1	LEU C 453	33.164	78.838	79.217	1.00	14.87	C
ATOM 11500	CD2	LEU C 453	34.546	79.476	81.193	1.00	15.29	C
ATOM 11504	C	LEU C 453	31.000	81.371	83.009	1.00	16.75	C
ATOM 11505	O	LEU C 453	31.170	82.565	82.744	1.00	16.28	O
ATOM 11506	N	SER C 454	29.864	80.893	83.497	1.00	18.15	N

315

ATOM 11508	CA	SER C 454	28.758	81.777	83.832	1.00	19.00	C
ATOM 11510	CB	SER C 454	27.495	80.975	84.056	1.00	18.44	C
ATOM 11513	OG	SER C 454	26.560	81.783	84.708	1.00	18.44	O
ATOM 11515	C	SER C 454	29.094	82.637	85.065	1.00	20.30	C
ATOM 11516	O	SER C 454	28.771	83.825	85.101	1.00	20.38	O
ATOM 11517	N	GLU C 455	29.771	82.055	86.057	1.00	21.99	N
ATOM 11519	CA	GLU C 455	30.186	82.805	87.242	1.00	23.44	C
ATOM 11521	CB	GLU C 455	31.020	81.935	88.193	1.00	24.37	C
ATOM 11524	CG	GLU C 455	31.392	82.607	89.521	1.00	27.84	C
ATOM 11527	CD	GLU C 455	30.268	82.622	90.581	1.00	32.12	C
ATOM 11528	OE1	GLU C 455	29.127	82.143	90.322	1.00	34.44	O
ATOM 11529	OE2	GLU C 455	30.541	83.124	91.705	1.00	35.01	O
ATOM 11530	C	GLU C 455	30.993	84.008	86.802	1.00	23.44	C
ATOM 11531	O	GLU C 455	30.777	85.112	87.282	1.00	23.21	O
ATOM 11532	N	ILE C 456	31.910	83.788	85.866	1.00	24.06	N
ATOM 11534	CA	ILE C 456	32.804	84.853	85.416	1.00	24.51	C
ATOM 11536	CB	ILE C 456	34.000	84.334	84.600	1.00	24.80	C
ATOM 11538	CG1	ILE C 456	34.763	83.221	85.304	1.00	25.39	C
ATOM 11541	CD1	ILE C 456	35.648	82.435	84.325	1.00	26.47	C
ATOM 11545	CG2	ILE C 456	34.976	85.449	84.402	1.00	26.30	C
ATOM 11549	C	ILE C 456	32.103	85.903	84.571	1.00	24.01	C
ATOM 11550	O	ILE C 456	32.354	87.069	84.791	1.00	24.09	O
ATOM 11551	N	TRP C 457	31.239	85.491	83.634	1.00	23.70	N
ATOM 11553	CA	TRP C 457	30.848	86.330	82.487	1.00	23.66	C
ATOM 11555	CB	TRP C 457	31.240	85.660	81.163	1.00	22.92	C
ATOM 11558	CG	TRP C 457	32.702	85.571	80.944	1.00	21.92	C
ATOM 11559	CD1	TRP C 457	33.641	86.438	81.379	1.00	21.53	C
ATOM 11561	NE1	TRP C 457	34.889	86.017	81.000	1.00	21.44	N
ATOM 11563	CE2	TRP C 457	34.770	84.852	80.299	1.00	20.54	C
ATOM 11564	CD2	TRP C 457	33.410	84.535	80.249	1.00	21.29	C
ATOM 11565	CE3	TRP C 457	33.021	83.361	79.577	1.00	21.81	C
ATOM 11567	CZ3	TRP C 457	33.995	82.561	78.984	1.00	20.80	C
ATOM 11569	CH2	TRP C 457	35.342	82.912	79.050	1.00	22.02	C
ATOM 11571	CZ2	TRP C 457	35.752	84.054	79.706	1.00	21.84	C
ATOM 11573	C	TRP C 457	29.383	86.772	82.376	1.00	24.59	C
ATOM 11574	O	TRP C 457	29.107	87.719	81.658	1.00	25.61	O
ATOM 11575	N	ASP C 458	28.440	86.136	83.051	1.00	25.15	N
ATOM 11577	CA	ASP C 458	27.042	86.483	82.822	1.00	25.63	C
ATOM 11579	CB	ASP C 458	26.113	85.302	83.133	1.00	25.67	C
ATOM 11582	CG	ASP C 458	26.092	84.253	82.027	1.00	25.36	C
ATOM 11583	OD1	ASP C 458	25.897	84.555	80.820	1.00	24.47	O
ATOM 11584	OD2	ASP C 458	26.240	83.062	82.305	1.00	26.12	O
ATOM 11585	C	ASP C 458	26.676	87.673	83.676	1.00	26.06	C
ATOM 11586	O	ASP C 458	27.023	87.696	84.848	1.00	27.02	O
ATOM 11587	O13	444 C 500	39.286	80.254	75.403	1.00	48.16	O
ATOM 11588	S12	444 C 500	39.775	80.845	74.203	1.00	46.50	S
ATOM 11589	O14	444 C 500	41.215	81.038	74.217	1.00	48.57	O
ATOM 11590	C01	444 C 500	39.451	79.745	72.851	1.00	48.48	C

316

ATOM 11591	C02 444 C 500	40.471	79.528	71.857	1.00	50.39	C
ATOM 11593	C03 444 C 500	40.204	78.677	70.760	1.00	51.15	C
ATOM 11595	C04 444 C 500	38.934	78.063	70.652	1.00	51.42	C
ATOM 11597	C05 444 C 500	37.927	78.301	71.643	1.00	51.23	C
ATOM 11599	C06 444 C 500	38.173	79.156	72.744	1.00	49.18	C
ATOM 11601	N15 444 C 500	38.849	82.286	73.738	1.00	37.44	N
ATOM 11602	C16 444 C 500	39.244	82.987	72.414	1.00	34.73	C
ATOM 11605	C19 444 C 500	39.453	84.483	72.598	1.00	33.95	C
ATOM 11606	F22 444 C 500	39.958	85.057	71.481	1.00	32.52	F
ATOM 11607	F21 444 C 500	40.295	84.801	73.592	1.00	32.47	F
ATOM 11608	F20 444 C 500	38.313	85.094	72.919	1.00	33.30	F
ATOM 11609	C23 444 C 500	37.374	82.286	73.914	1.00	30.68	C
ATOM 11610	C24 444 C 500	36.883	82.707	75.167	1.00	27.90	C
ATOM 11612	C25 444 C 500	35.501	82.756	75.423	1.00	25.92	C
ATOM 11614	C28 444 C 500	36.428	81.910	72.894	1.00	27.94	C
ATOM 11616	C27 444 C 500	35.038	81.954	73.152	1.00	24.86	C
ATOM 11618	C26 444 C 500	34.531	82.386	74.419	1.00	23.01	C
ATOM 11619	C33 444 C 500	33.039	82.455	74.834	1.00	21.39	C
ATOM 11620	C34 444 C 500	32.127	83.103	73.773	1.00	23.09	C
ATOM 11621	F36 444 C 500	30.827	83.196	74.160	1.00	25.25	F
ATOM 11622	F37 444 C 500	32.501	84.349	73.501	1.00	24.47	F
ATOM 11623	F35 444 C 500	32.176	82.499	72.577	1.00	23.98	F
ATOM 11624	O42 444 C 500	32.816	83.068	76.132	1.00	19.34	O
ATOM 11626	C38 444 C 500	32.555	81.023	75.003	1.00	21.35	C
ATOM 11627	F39 444 C 500	33.054	80.224	74.045	1.00	20.88	F
ATOM 11628	F40 444 C 500	33.018	80.546	76.167	1.00	22.16	F
ATOM 11629	F41 444 C 500	31.227	80.824	75.072	1.00	22.76	F
ATOM 11630	N LEU D 220	64.184	118.262	74.238	1.00	20.17	N
ATOM 11632	CA LEU D 220	63.239	118.118	73.082	1.00	20.68	C
ATOM 11634	CB LEU D 220	61.787	118.487	73.472	1.00	20.83	C
ATOM 11637	CG LEU D 220	61.091	117.814	74.673	1.00	22.88	C
ATOM 11639	CD1 LEU D 220	60.214	118.775	75.506	1.00	23.53	C
ATOM 11643	CD2 LEU D 220	60.242	116.601	74.204	1.00	24.10	C
ATOM 11647	C LEU D 220	63.630	118.974	71.849	1.00	20.24	C
ATOM 11648	O LEU D 220	64.231	120.062	71.943	1.00	19.45	O
ATOM 11651	N THR D 221	63.204	118.463	70.699	1.00	20.07	N
ATOM 11653	CA THR D 221	63.367	119.110	69.398	1.00	19.70	C
ATOM 11655	CB THR D 221	63.137	118.039	68.248	1.00	19.86	C
ATOM 11657	OG1 THR D 221	61.778	117.533	68.250	1.00	17.93	O
ATOM 11659	CG2 THR D 221	64.002	116.776	68.470	1.00	19.27	C
ATOM 11663	C THR D 221	62.381	120.275	69.233	1.00	19.83	C
ATOM 11664	O THR D 221	61.242	120.214	69.745	1.00	19.99	O
ATOM 11665	N ALA D 222	62.794	121.315	68.501	1.00	19.56	N
ATOM 11667	CA ALA D 222	61.877	122.401	68.071	1.00	19.50	C
ATOM 11669	CB ALA D 222	62.496	123.189	66.914	1.00	19.19	C
ATOM 11673	C ALA D 222	60.474	121.901	67.654	1.00	19.70	C
ATOM 11674	O ALA D 222	59.453	122.539	67.958	1.00	19.07	O
ATOM 11675	N ALA D 223	60.460	120.770	66.946	1.00	19.78	N

317

ATOM 11677	CA	ALA D 223	59.254	120.239	66.365	1.00	20.35	C
ATOM 11679	CB	ALA D 223	59.617	119.252	65.263	1.00	20.37	C
ATOM 11683	C	ALA D 223	58.373	119.569	67.428	1.00	21.69	C
ATOM 11684	O	ALA D 223	57.144	119.455	67.248	1.00	22.25	O
ATOM 11685	N	GLN D 224	58.989	119.090	68.519	1.00	22.23	N
ATOM 11687	CA	GLN D 224	58.235	118.471	69.621	1.00	22.06	C
ATOM 11689	CB	GLN D 224	59.127	117.536	70.420	1.00	22.22	C
ATOM 11692	CG	GLN D 224	59.198	116.092	69.897	1.00	21.63	C
ATOM 11695	CD	GLN D 224	60.211	115.250	70.715	1.00	20.75	C
ATOM 11696	OE1	GLN D 224	61.304	115.751	71.089	1.00	17.25	O
ATOM 11697	NE2	GLN D 224	59.845	113.985	71.000	1.00	19.61	N
ATOM 11700	C	GLN D 224	57.661	119.565	70.533	1.00	22.14	C
ATOM 11701	O	GLN D 224	56.567	119.426	71.084	1.00	21.67	O
ATOM 11702	N	GLU D 225	58.410	120.650	70.662	1.00	22.21	N
ATOM 11704	CA	GLU D 225	57.931	121.845	71.327	1.00	22.89	C
ATOM 11706	CB	GLU D 225	59.041	122.868	71.392	1.00	23.15	C
ATOM 11709	CG	GLU D 225	60.227	122.424	72.216	1.00	25.60	C
ATOM 11712	CD	GLU D 225	60.197	123.017	73.609	1.00	28.92	C
ATOM 11713	OE1	GLU D 225	59.079	123.047	74.201	1.00	30.22	O
ATOM 11714	OE2	GLU D 225	61.285	123.459	74.087	1.00	30.46	O
ATOM 11715	C	GLU D 225	56.774	122.484	70.576	1.00	23.00	C
ATOM 11716	O	GLU D 225	55.854	123.014	71.190	1.00	23.62	O
ATOM 11717	N	LEU D 226	56.839	122.478	69.246	1.00	22.91	N
ATOM 11719	CA	LEU D 226	55.791	123.087	68.419	1.00	22.54	C
ATOM 11721	CB	LEU D 226	56.160	123.049	66.920	1.00	22.44	C
ATOM 11724	CG	LEU D 226	55.179	123.602	65.874	1.00	21.51	C
ATOM 11726	CD1	LEU D 226	55.168	125.088	65.911	1.00	21.08	C
ATOM 11730	CD2	LEU D 226	55.530	123.149	64.472	1.00	21.32	C
ATOM 11734	C	LEU D 226	54.524	122.298	68.684	1.00	22.31	C
ATOM 11735	O	LEU D 226	53.482	122.859	68.991	1.00	21.87	O
ATOM 11736	N	MET D 227	54.658	120.982	68.605	1.00	22.30	N
ATOM 11738	CA	MET D 227	53.538	120.070	68.740	1.00	22.44	C
ATOM 11740	CB	MET D 227	54.020	118.643	68.560	1.00	22.58	C
ATOM 11743	CG	MET D 227	52.996	117.601	68.927	1.00	25.04	C
ATOM 11746	SD	MET D 227	53.804	115.999	69.121	1.00	30.41	S
ATOM 11747	CE	MET D 227	54.339	115.735	67.302	1.00	28.56	C
ATOM 11751	C	MET D 227	52.872	120.209	70.088	1.00	21.96	C
ATOM 11752	O	MET D 227	51.663	120.213	70.149	1.00	22.52	O
ATOM 11753	N	ILE D 228	53.663	120.324	71.158	1.00	21.49	N
ATOM 11755	CA	ILE D 228	53.147	120.394	72.530	1.00	20.69	C
ATOM 11757	CB	ILE D 228	54.263	120.087	73.578	1.00	20.40	C
ATOM 11759	CG1	ILE D 228	54.718	118.623	73.467	1.00	19.82	C
ATOM 11762	CD1	ILE D 228	56.110	118.356	74.007	1.00	19.30	C
ATOM 11766	CG2	ILE D 228	53.753	120.351	74.990	1.00	19.35	C
ATOM 11770	C	ILE D 228	52.506	121.740	72.823	1.00	20.46	C
ATOM 11771	O	ILE D 228	51.410	121.802	73.339	1.00	20.39	O
ATOM 11772	N	GLN D 229	53.192	122.814	72.480	1.00	20.51	N
ATOM 11774	CA	GLN D 229	52.653	124.151	72.667	1.00	20.98	C

318

ATOM	11776	CB	GLN D 229	53.689	125.192	72.259	1.00	21.36	C
ATOM	11779	CG	GLN D 229	54.859	125.276	73.219	1.00	23.14	C
ATOM	11782	CD	GLN D 229	55.856	126.348	72.835	1.00	25.43	C
ATOM	11783	OE1	GLN D 229	55.481	127.379	72.278	1.00	26.43	O
ATOM	11784	NE2	GLN D 229	57.127	126.117	73.147	1.00	26.80	N
ATOM	11787	C	GLN D 229	51.385	124.356	71.862	1.00	20.82	C
ATOM	11788	O	GLN D 229	50.497	125.119	72.250	1.00	20.41	O
ATOM	11789	N	GLN D 230	51.304	123.665	70.732	1.00	20.92	N
ATOM	11791	CA	GLN D 230	50.144	123.763	69.878	1.00	21.20	C
ATOM	11793	CB	GLN D 230	50.355	123.070	68.529	1.00	21.82	C
ATOM	11796	CG	GLN D 230	49.702	123.825	67.353	1.00	23.74	C
ATOM	11799	CD	GLN D 230	48.367	123.253	67.014	1.00	26.14	C
ATOM	11800	OE1	GLN D 230	48.050	122.152	67.460	1.00	26.53	O
ATOM	11801	NE2	GLN D 230	47.572	123.986	66.215	1.00	28.27	N
ATOM	11804	C	GLN D 230	48.973	123.165	70.578	1.00	20.57	C
ATOM	11805	O	GLN D 230	47.949	123.806	70.692	1.00	20.72	O
ATOM	11806	N	LEU D 231	49.134	121.937	71.060	1.00	20.16	N
ATOM	11808	CA	LEU D 231	48.089	121.266	71.827	1.00	19.67	C
ATOM	11810	CB	LEU D 231	48.559	119.871	72.246	1.00	19.77	C
ATOM	11813	CG	LEU D 231	48.878	118.858	71.142	1.00	19.65	C
ATOM	11815	CD1	LEU D 231	49.388	117.583	71.789	1.00	18.59	C
ATOM	11819	CD2	LEU D 231	47.682	118.591	70.251	1.00	19.17	C
ATOM	11823	C	LEU D 231	47.671	122.090	73.066	1.00	19.13	C
ATOM	11824	O	LEU D 231	46.478	122.222	73.342	1.00	18.20	O
ATOM	11825	N	VAL D 232	48.654	122.653	73.773	1.00	18.56	N
ATOM	11827	CA	VAL D 232	48.404	123.362	75.012	1.00	18.84	C
ATOM	11829	CB	VAL D 232	49.727	123.748	75.777	1.00	18.93	C
ATOM	11831	CG1	VAL D 232	49.454	124.704	76.948	1.00	17.92	C
ATOM	11835	CG2	VAL D 232	50.400	122.506	76.333	1.00	20.00	C
ATOM	11839	C	VAL D 232	47.571	124.594	74.720	1.00	19.13	C
ATOM	11840	O	VAL D 232	46.563	124.843	75.404	1.00	19.31	O
ATOM	11841	N	ALA D 233	47.995	125.348	73.704	1.00	19.27	N
ATOM	11843	CA	ALA D 233	47.355	126.586	73.291	1.00	19.37	C
ATOM	11845	CB	ALA D 233	48.204	127.240	72.269	1.00	19.55	C
ATOM	11849	C	ALA D 233	45.958	126.371	72.728	1.00	19.98	C
ATOM	11850	O	ALA D 233	45.089	127.187	72.914	1.00	20.08	O
ATOM	11851	N	ALA D 234	45.758	125.264	72.033	1.00	21.06	N
ATOM	11853	CA	ALA D 234	44.474	124.889	71.456	1.00	22.23	C
ATOM	11855	CB	ALA D 234	44.642	123.592	70.591	1.00	22.36	C
ATOM	11859	C	ALA D 234	43.450	124.632	72.544	1.00	23.31	C
ATOM	11860	O	ALA D 234	42.309	125.095	72.482	1.00	24.03	O
ATOM	11861	N	GLN D 235	43.874	123.838	73.512	1.00	24.09	N
ATOM	11863	CA	GLN D 235	43.114	123.529	74.699	1.00	24.90	C
ATOM	11865	CB	GLN D 235	44.009	122.697	75.611	1.00	25.31	C
ATOM	11868	CG	GLN D 235	43.341	122.166	76.838	1.00	26.35	C
ATOM	11871	CD	GLN D 235	43.536	120.682	76.988	1.00	26.06	C
ATOM	11872	OE1	GLN D 235	44.651	120.189	76.890	1.00	25.19	O
ATOM	11873	NE2	GLN D 235	42.446	119.967	77.242	1.00	28.28	N

ATOM 11876	C	GLN D 235	42.686	124.780	75.425	1.00	25.24	C
ATOM 11877	O	GLN D 235	41.538	124.919	75.809	1.00	25.03	O
ATOM 11878	N	LEU D 236	43.628	125.689	75.599	1.00	26.10	N
ATOM 11880	CA	LEU D 236	43.390	126.942	76.297	1.00	27.26	C
ATOM 11882	CB	LEU D 236	44.722	127.668	76.471	1.00	27.42	C
ATOM 11885	CG	LEU D 236	44.745	128.873	77.398	1.00	27.58	C
ATOM 11887	CD1	LEU D 236	44.605	128.433	78.835	1.00	28.10	C
ATOM 11891	CD2	LEU D 236	46.041	129.627	77.178	1.00	28.09	C
ATOM 11895	C	LEU D 236	42.405	127.861	75.581	1.00	28.27	C
ATOM 11896	O	LEU D 236	41.637	128.566	76.228	1.00	28.34	O
ATOM 11897	N	GLN D 237	42.452	127.861	74.252	1.00	29.81	N
ATOM 11899	CA	GLN D 237	41.590	128.705	73.426	1.00	31.35	C
ATOM 11901	CB	GLN D 237	42.258	128.976	72.061	1.00	31.48	C
ATOM 11904	CG	GLN D 237	43.664	129.641	72.208	1.00	32.45	C
ATOM 11907	CD	GLN D 237	44.260	130.205	70.924	1.00	31.73	C
ATOM 11908	OE1	GLN D 237	43.818	129.873	69.838	1.00	32.01	O
ATOM 11909	NE2	GLN D 237	45.284	131.045	71.060	1.00	32.05	N
ATOM 11912	C	GLN D 237	40.183	128.123	73.246	1.00	32.76	C
ATOM 11913	O	GLN D 237	39.270	128.827	72.802	1.00	32.45	O
ATOM 11914	N	CYS D 238	40.016	126.844	73.594	1.00	34.75	N
ATOM 11916	CA	CYS D 238	38.725	126.156	73.503	1.00	36.55	C
ATOM 11918	CB	CYS D 238	38.940	124.656	73.302	1.00	36.77	C
ATOM 11921	SG	CYS D 238	39.390	124.234	71.597	1.00	39.71	S
ATOM 11922	C	CYS D 238	37.857	126.431	74.741	1.00	37.59	C
ATOM 11923	O	CYS D 238	36.641	126.626	74.628	1.00	37.65	O
ATOM 11924	N	ASN D 239	38.506	126.442	75.905	1.00	39.05	N
ATOM 11926	CA	ASN D 239	37.928	126.902	77.178	1.00	40.28	C
ATOM 11928	CB	ASN D 239	39.011	126.876	78.261	1.00	40.18	C
ATOM 11931	CG	ASN D 239	38.750	125.862	79.316	1.00	39.87	C
ATOM 11932	OD1	ASN D 239	38.594	126.222	80.479	1.00	38.69	O
ATOM 11933	ND2	ASN D 239	38.710	124.571	78.932	1.00	39.42	N
ATOM 11936	C	ASN D 239	37.351	128.324	77.125	1.00	41.84	C
ATOM 11937	O	ASN D 239	36.176	128.523	77.412	1.00	42.19	O
ATOM 11938	N	LYS D 240	38.197	129.304	76.794	1.00	43.61	N
ATOM 11940	CA	LYS D 240	37.783	130.711	76.662	1.00	45.18	C
ATOM 11942	CB	LYS D 240	38.901	131.563	76.017	1.00	45.40	C
ATOM 11945	CG	LYS D 240	40.076	131.903	76.939	1.00	46.18	C
ATOM 11948	CD	LYS D 240	40.872	133.129	76.457	1.00	46.88	C
ATOM 11951	CE	LYS D 240	42.395	132.894	76.551	1.00	47.30	C
ATOM 11954	NZ	LYS D 240	42.955	132.129	75.377	1.00	46.32	N
ATOM 11958	C	LYS D 240	36.516	130.833	75.808	1.00	46.26	C
ATOM 11959	O	LYS D 240	35.514	131.406	76.255	1.00	46.33	O
ATOM 11960	N	ARG D 241	36.600	130.284	74.583	1.00	47.51	N
ATOM 11962	CA	ARG D 241	35.486	130.183	73.604	1.00	48.07	C
ATOM 11964	CB	ARG D 241	35.823	129.102	72.528	1.00	48.22	C
ATOM 11967	CG	ARG D 241	34.952	129.071	71.245	1.00	48.46	C
ATOM 11970	CD	ARG D 241	35.512	129.840	70.020	1.00	48.76	C
ATOM 11973	NE	ARG D 241	34.509	130.762	69.449	1.00	49.21	N

320

ATOM 11975	CZ ARG D 241	34.720 131.636 68.452 1.00 48.77	C
ATOM 11976	NH1 ARG D 241	35.906 131.740 67.862 1.00 48.93	N
ATOM 11979	NH2 ARG D 241	33.727 132.418 68.041 1.00 48.40	N
ATOM 11982	C ARG D 241	34.132 129.908 74.311 1.00 48.33	C
ATOM 11983	O ARG D 241	33.081 130.399 73.859 1.00 48.47	O
ATOM 11984	N SER D 242	34.183 129.135 75.410 1.00 48.36	N
ATOM 11986	CA SER D 242	33.093 129.062 76.407 1.00 48.27	C
ATOM 11988	CB SER D 242	32.845 127.612 76.863 1.00 48.06	C
ATOM 11991	OG SER D 242	33.856 126.745 76.395 1.00 47.14	O
ATOM 11993	C SER D 242	33.342 129.991 77.626 1.00 48.31	C
ATOM 11994	O SER D 242	34.033 129.642 78.592 1.00 48.11	O
ATOM 11995	N VAL D 249	22.728 129.089 80.179 1.00 27.32	N
ATOM 11997	CA VAL D 249	22.676 127.776 80.822 1.00 27.70	C
ATOM 11999	CB VAL D 249	24.089 127.310 81.263 1.00 27.90	C
ATOM 12001	CG1 VAL D 249	24.052 126.476 82.555 1.00 27.79	C
ATOM 12005	CG2 VAL D 249	24.771 126.513 80.139 1.00 28.41	C
ATOM 12009	C VAL D 249	21.752 127.785 82.035 1.00 27.71	C
ATOM 12010	O VAL D 249	21.708 128.764 82.778 1.00 27.82	O
ATOM 12011	N THR D 250	21.055 126.669 82.251 1.00 27.63	N
ATOM 12013	CA THR D 250	20.052 126.550 83.310 1.00 27.53	C
ATOM 12015	CB THR D 250	19.260 125.242 83.156 1.00 27.53	C
ATOM 12017	OG1 THR D 250	18.840 125.082 81.799 1.00 27.43	O
ATOM 12019	CG2 THR D 250	17.959 125.284 83.951 1.00 27.68	C
ATOM 12023	C THR D 250	20.709 126.563 84.687 1.00 27.51	C
ATOM 12024	O THR D 250	21.724 125.885 84.890 1.00 27.39	O
ATOM 12025	N PRO D 251	20.141 127.312 85.635 1.00 27.46	N
ATOM 12026	CA PRO D 251	20.720 127.387 86.980 1.00 27.48	C
ATOM 12028	CB PRO D 251	20.172 128.715 87.539 1.00 27.49	C
ATOM 12031	CG PRO D 251	19.156 129.216 86.544 1.00 27.35	C
ATOM 12034	CD PRO D 251	18.929 128.142 85.522 1.00 27.39	C
ATOM 12037	C PRO D 251	20.334 126.198 87.867 1.00 27.56	C
ATOM 12038	O PRO D 251	19.190 125.733 87.845 1.00 27.69	O
ATOM 12039	N TRP D 252	21.313 125.725 88.634 1.00 27.62	N
ATOM 12041	CA TRP D 252	21.182 124.581 89.549 1.00 27.55	C
ATOM 12043	CB TRP D 252	22.278 124.691 90.628 1.00 27.55	C
ATOM 12046	CG TRP D 252	22.524 123.453 91.445 1.00 27.48	C
ATOM 12047	CD1 TRP D 252	22.550 123.360 92.816 1.00 27.50	C
ATOM 12049	NE1 TRP D 252	22.819 122.066 93.197 1.00 27.51	N
ATOM 12051	CE2 TRP D 252	22.988 121.295 92.072 1.00 26.94	C
ATOM 12052	CD2 TRP D 252	22.809 122.137 90.952 1.00 26.92	C
ATOM 12053	CE3 TRP D 252	22.921 121.577 89.672 1.00 25.87	C
ATOM 12055	CZ3 TRP D 252	23.193 120.232 89.547 1.00 24.88	C
ATOM 12057	CH2 TRP D 252	23.359 119.422 90.674 1.00 25.44	C
ATOM 12059	CZ2 TRP D 252	23.269 119.930 91.944 1.00 25.75	C
ATOM 12061	C TRP D 252	19.786 124.407 90.196 1.00 27.43	C
ATOM 12062	O TRP D 252	19.248 125.312 90.836 1.00 27.03	O
ATOM 12063	N ALA D 260	11.952 118.155 95.227 1.00 23.00	N
ATOM 12065	CA ALA D 260	12.344 116.854 94.696 1.00 23.32	C

321

ATOM	12067	CB	ALA D 260	11.832	115.729	95.597	1.00	23.03	C
ATOM	12071	C	ALA D 260	11.876	116.645	93.244	1.00	23.64	C
ATOM	12072	O	ALA D 260	12.530	115.918	92.481	1.00	23.69	O
ATOM	12073	N	ALA D 261	10.772	117.302	92.861	1.00	23.93	N
ATOM	12075	CA	ALA D 261	10.134	117.103	91.542	1.00	24.02	C
ATOM	12077	CB	ALA D 261	8.621	117.448	91.625	1.00	24.06	C
ATOM	12081	C	ALA D 261	10.811	117.867	90.378	1.00	24.05	C
ATOM	12082	O	ALA D 261	11.689	117.323	89.700	1.00	23.74	O
ATOM	12083	N	ASP D 262	10.406	119.124	90.161	1.00	24.17	N
ATOM	12085	CA	ASP D 262	10.994	119.991	89.121	1.00	24.14	C
ATOM	12087	CB	ASP D 262	10.240	121.335	89.036	1.00	24.11	C
ATOM	12090	CG	ASP D 262	8.859	121.204	88.403	1.00	24.03	C
ATOM	12091	OD1	ASP D 262	8.783	120.729	87.250	1.00	24.40	O
ATOM	12092	OD2	ASP D 262	7.801	121.556	88.973	1.00	22.47	O
ATOM	12093	C	ASP D 262	12.487	120.270	89.353	1.00	24.08	C
ATOM	12094	O	ASP D 262	13.148	120.862	88.498	1.00	24.02	O
ATOM	12095	N	ALA D 263	12.995	119.863	90.519	1.00	24.08	N
ATOM	12097	CA	ALA D 263	14.406	119.986	90.863	1.00	24.12	C
ATOM	12099	CB	ALA D 263	14.605	119.827	92.363	1.00	24.05	C
ATOM	12103	C	ALA D 263	15.235	118.953	90.116	1.00	24.31	C
ATOM	12104	O	ALA D 263	16.154	119.316	89.388	1.00	24.40	O
ATOM	12105	N	ARG D 264	14.906	117.672	90.298	1.00	24.43	N
ATOM	12107	CA	ARG D 264	15.637	116.571	89.645	1.00	24.41	C
ATOM	12109	CB	ARG D 264	14.931	115.220	89.857	1.00	24.78	C
ATOM	12112	CG	ARG D 264	15.219	114.559	91.207	1.00	26.41	C
ATOM	12115	CD	ARG D 264	16.128	113.313	91.153	1.00	28.02	C
ATOM	12118	NE	ARG D 264	15.936	112.468	92.338	1.00	29.58	N
ATOM	12120	CZ	ARG D 264	16.344	112.768	93.581	1.00	30.11	C
ATOM	12121	NH1	ARG D 264	17.004	113.895	93.847	1.00	30.32	N
ATOM	12124	NH2	ARG D 264	16.099	111.919	94.574	1.00	30.11	N
ATOM	12127	C	ARG D 264	15.786	116.812	88.157	1.00	23.72	C
ATOM	12128	O	ARG D 264	16.872	116.650	87.618	1.00	23.74	O
ATOM	12129	N	GLN D 265	14.686	117.204	87.514	1.00	23.03	N
ATOM	12131	CA	GLN D 265	14.637	117.457	86.071	1.00	22.54	C
ATOM	12133	CB	GLN D 265	13.273	118.023	85.671	1.00	22.69	C
ATOM	12136	CG	GLN D 265	12.092	117.084	85.914	1.00	23.55	C
ATOM	12139	CD	GLN D 265	11.692	116.289	84.682	1.00	24.35	C
ATOM	12140	OE1	GLN D 265	12.547	115.948	83.836	1.00	24.12	O
ATOM	12141	NE2	GLN D 265	10.391	115.972	84.582	1.00	23.27	N
ATOM	12144	C	GLN D 265	15.674	118.475	85.669	1.00	21.78	C
ATOM	12145	O	GLN D 265	16.368	118.314	84.667	1.00	21.44	O
ATOM	12146	N	GLN D 266	15.744	119.532	86.469	1.00	20.95	N
ATOM	12148	CA	GLN D 266	16.585	120.686	86.191	1.00	20.34	C
ATOM	12150	CB	GLN D 266	16.051	121.911	86.942	1.00	20.32	C
ATOM	12153	CG	GLN D 266	14.887	122.611	86.250	1.00	19.85	C
ATOM	12156	CD	GLN D 266	14.876	124.095	86.515	1.00	19.30	C
ATOM	12157	OE1	GLN D 266	13.819	124.682	86.767	1.00	18.49	O
ATOM	12158	NE2	GLN D 266	16.054	124.712	86.462	1.00	18.45	N

322

ATOM 12161	C	GLN D 266	18.060	120.493	86.534	1.00	19.81	C
ATOM 12162	O	GLN D 266	18.918	121.083	85.887	1.00	19.75	O
ATOM 12163	N	ARG D 267	18.367	119.707	87.558	1.00	19.26	N
ATOM 12165	CA	ARG D 267	19.760	119.484	87.928	1.00	18.91	C
ATOM 12167	CB	ARG D 267	19.875	118.831	89.307	1.00	18.86	C
ATOM 12170	CG	ARG D 267	19.368	119.716	90.458	1.00	19.30	C
ATOM 12173	CD	ARG D 267	20.088	119.498	91.791	1.00	19.49	C
ATOM 12176	NE	ARG D 267	19.276	119.747	92.990	1.00	19.05	N
ATOM 12178	CZ	ARG D 267	18.259	118.992	93.394	1.00	19.29	C
ATOM 12179	NH1	ARG D 267	17.879	117.927	92.698	1.00	19.93	N
ATOM 12182	NH2	ARG D 267	17.605	119.304	94.501	1.00	19.74	N
ATOM 12185	C	ARG D 267	20.372	118.607	86.850	1.00	18.71	C
ATOM 12186	O	ARG D 267	21.551	118.745	86.522	1.00	18.59	O
ATOM 12187	N	PHE D 268	19.540	117.732	86.281	1.00	18.40	N
ATOM 12189	CA	PHE D 268	19.941	116.860	85.186	1.00	18.11	C
ATOM 12191	CB	PHE D 268	18.951	115.694	85.016	1.00	17.95	C
ATOM 12194	CG	PHE D 268	19.275	114.814	83.856	1.00	17.37	C
ATOM 12195	CD1	PHE D 268	20.359	113.949	83.912	1.00	17.56	C
ATOM 12197	CE1	PHE D 268	20.693	113.154	82.823	1.00	17.07	C
ATOM 12199	CZ	PHE D 268	19.946	113.236	81.669	1.00	17.17	C
ATOM 12201	CE2	PHE D 268	18.865	114.109	81.602	1.00	16.96	C
ATOM 12203	CD2	PHE D 268	18.542	114.893	82.686	1.00	16.46	C
ATOM 12205	C	PHE D 268	20.098	117.636	83.865	1.00	18.05	C
ATOM 12206	O	PHE D 268	21.070	117.418	83.151	1.00	17.93	O
ATOM 12207	N	ALA D 269	19.159	118.534	83.547	1.00	17.95	N
ATOM 12209	CA	ALA D 269	19.231	119.343	82.316	1.00	17.76	C
ATOM 12211	CB	ALA D 269	17.983	120.183	82.140	1.00	17.62	C
ATOM 12215	C	ALA D 269	20.461	120.235	82.347	1.00	17.71	C
ATOM 12216	O	ALA D 269	21.244	120.267	81.404	1.00	17.51	O
ATOM 12217	N	HIS D 270	20.615	120.954	83.451	1.00	17.77	N
ATOM 12219	CA	HIS D 270	21.846	121.670	83.766	1.00	18.05	C
ATOM 12221	CB	HIS D 270	21.771	122.211	85.198	1.00	18.27	C
ATOM 12224	CG	HIS D 270	23.061	122.777	85.689	1.00	19.88	C
ATOM 12225	ND1	HIS D 270	23.591	123.949	85.199	1.00	21.95	N
ATOM 12227	CE1	HIS D 270	24.743	124.191	85.798	1.00	22.95	C
ATOM 12229	NE2	HIS D 270	24.975	123.223	86.664	1.00	21.99	N
ATOM 12231	CD2	HIS D 270	23.941	122.322	86.610	1.00	21.49	C
ATOM 12233	C	HIS D 270	23.122	120.815	83.569	1.00	17.75	C
ATOM 12234	O	HIS D 270	24.135	121.307	83.066	1.00	17.56	O
ATOM 12235	N	PHE D 271	23.075	119.546	83.959	1.00	17.53	N
ATOM 12237	CA	PHE D 271	24.208	118.640	83.727	1.00	17.53	C
ATOM 12239	CB	PHE D 271	24.053	117.315	84.477	1.00	17.68	C
ATOM 12242	CG	PHE D 271	24.873	117.217	85.731	1.00	18.67	C
ATOM 12243	CD1	PHE D 271	24.595	118.009	86.823	1.00	19.66	C
ATOM 12245	CE1	PHE D 271	25.339	117.902	87.997	1.00	20.35	C
ATOM 12247	CZ	PHE D 271	26.364	116.992	88.092	1.00	20.48	C
ATOM 12249	CE2	PHE D 271	26.649	116.183	87.019	1.00	20.74	C
ATOM 12251	CD2	PHE D 271	25.898	116.292	85.837	1.00	20.72	C

323

ATOM	12253	C	PHE D 271	24.379	118.341	82.244	1.00	17.14	C
ATOM	12254	O	PHE D 271	25.495	118.324	81.764	1.00	17.01	O
ATOM	12255	N	THR D 272	23.289	118.097	81.517	1.00	16.93	N
ATOM	12257	CA	THR D 272	23.401	117.786	80.092	1.00	16.56	C
ATOM	12259	CB	THR D 272	22.085	117.262	79.459	1.00	16.45	C
ATOM	12261	OG1	THR D 272	21.036	118.214	79.635	1.00	15.61	O
ATOM	12263	CG2	THR D 272	21.597	115.996	80.145	1.00	16.59	C
ATOM	12267	C	THR D 272	23.867	119.001	79.326	1.00	16.57	C
ATOM	12268	O	THR D 272	24.542	118.851	78.324	1.00	16.95	O
ATOM	12269	N	GLU D 273	23.535	120.198	79.801	1.00	16.50	N
ATOM	12271	CA	GLU D 273	23.917	121.417	79.103	1.00	16.38	C
ATOM	12273	CB	GLU D 273	23.079	122.612	79.561	1.00	16.60	C
ATOM	12276	CG	GLU D 273	21.660	122.628	79.000	1.00	16.17	C
ATOM	12279	CD	GLU D 273	20.769	123.645	79.687	1.00	16.15	C
ATOM	12280	OE1	GLU D 273	21.252	124.749	79.990	1.00	16.02	O
ATOM	12281	OE2	GLU D 273	19.582	123.346	79.921	1.00	15.92	O
ATOM	12282	C	GLU D 273	25.413	121.677	79.250	1.00	16.46	C
ATOM	12283	O	GLU D 273	26.048	122.023	78.272	1.00	17.15	O
ATOM	12284	N	LEU D 274	25.993	121.480	80.436	1.00	16.45	N
ATOM	12286	CA	LEU D 274	27.463	121.498	80.585	1.00	16.47	C
ATOM	12288	CB	LEU D 274	27.887	121.175	82.014	1.00	16.45	C
ATOM	12291	CG	LEU D 274	27.522	122.146	83.131	1.00	17.83	C
ATOM	12293	CD1	LEU D 274	28.034	121.599	84.438	1.00	18.43	C
ATOM	12297	CD2	LEU D 274	28.105	123.531	82.890	1.00	18.95	C
ATOM	12301	C	LEU D 274	28.139	120.488	79.658	1.00	16.34	C
ATOM	12302	O	LEU D 274	29.056	120.821	78.917	1.00	16.64	O
ATOM	12303	N	ALA D 275	27.682	119.244	79.720	1.00	16.06	N
ATOM	12305	CA	ALA D 275	28.155	118.196	78.827	1.00	15.87	C
ATOM	12307	CB	ALA D 275	27.343	116.937	79.055	1.00	15.82	C
ATOM	12311	C	ALA D 275	28.122	118.586	77.336	1.00	15.73	C
ATOM	12312	O	ALA D 275	28.977	118.147	76.585	1.00	15.15	O
ATOM	12313	N	ILE D 276	27.139	119.397	76.924	1.00	15.76	N
ATOM	12315	CA	ILE D 276	26.991	119.821	75.523	1.00	15.90	C
ATOM	12317	CB	ILE D 276	25.584	120.473	75.249	1.00	15.67	C
ATOM	12319	CG1	ILE D 276	24.528	119.400	74.955	1.00	14.78	C
ATOM	12322	CD1	ILE D 276	23.134	119.832	75.206	1.00	13.45	C
ATOM	12326	CG2	ILE D 276	25.634	121.438	74.066	1.00	15.58	C
ATOM	12330	C	ILE D 276	28.102	120.799	75.177	1.00	16.67	C
ATOM	12331	O	ILE D 276	28.726	120.702	74.126	1.00	16.45	O
ATOM	12332	N	ILE D 277	28.322	121.758	76.067	1.00	17.62	N
ATOM	12334	CA	ILE D 277	29.462	122.661	75.960	1.00	18.37	C
ATOM	12336	CB	ILE D 277	29.518	123.635	77.180	1.00	18.49	C
ATOM	12338	CG1	ILE D 277	28.612	124.842	76.952	1.00	17.80	C
ATOM	12341	CD1	ILE D 277	28.175	125.500	78.222	1.00	17.69	C
ATOM	12345	CG2	ILE D 277	30.957	124.099	77.457	1.00	18.88	C
ATOM	12349	C	ILE D 277	30.767	121.860	75.859	1.00	18.96	C
ATOM	12350	O	ILE D 277	31.598	122.169	75.026	1.00	19.51	O
ATOM	12351	N	SER D 278	30.955	120.845	76.698	1.00	19.34	N

324

ATOM	12353	CA	SER D 278	32.180	120.061	76.639	1.00	19.82	C
ATOM	12355	CB	SER D 278	32.177	118.950	77.690	1.00	19.87	C
ATOM	12358	OG	SER D 278	32.603	119.456	78.931	1.00	20.32	O
ATOM	12360	C	SER D 278	32.370	119.441	75.268	1.00	20.11	C
ATOM	12361	O	SER D 278	33.477	119.453	74.731	1.00	20.21	O
ATOM	12362	N	VAL D 279	31.285	118.894	74.723	1.00	20.55	N
ATOM	12364	CA	VAL D 279	31.323	118.140	73.476	1.00	21.04	C
ATOM	12366	CB	VAL D 279	29.945	117.520	73.142	1.00	21.27	C
ATOM	12368	CG1	VAL D 279	29.886	117.021	71.695	1.00	21.43	C
ATOM	12372	CG2	VAL D 279	29.657	116.394	74.083	1.00	21.87	C
ATOM	12376	C	VAL D 279	31.740	119.042	72.341	1.00	21.16	C
ATOM	12377	O	VAL D 279	32.469	118.620	71.457	1.00	21.05	O
ATOM	12378	N	GLN D 280	31.259	120.278	72.375	1.00	21.62	N
ATOM	12380	CA	GLN D 280	31.549	121.265	71.344	1.00	22.33	C
ATOM	12382	CB	GLN D 280	30.526	122.415	71.428	1.00	22.48	C
ATOM	12385	CG	GLN D 280	31.071	123.835	71.198	1.00	24.61	C
ATOM	12388	CD	GLN D 280	30.630	124.844	72.270	1.00	26.80	C
ATOM	12389	OE1	GLN D 280	29.492	125.353	72.230	1.00	27.38	O
ATOM	12390	NE2	GLN D 280	31.535	125.143	73.220	1.00	26.29	N
ATOM	12393	C	GLN D 280	33.027	121.735	71.465	1.00	22.39	C
ATOM	12394	O	GLN D 280	33.717	121.917	70.454	1.00	22.31	O
ATOM	12395	N	GLU D 281	33.492	121.905	72.708	1.00	22.30	N
ATOM	12397	CA	GLU D 281	34.896	122.230	73.038	1.00	22.00	C
ATOM	12399	CB	GLU D 281	35.091	122.375	74.575	1.00	21.87	C
ATOM	12402	CG	GLU D 281	34.897	123.780	75.148	1.00	21.96	C
ATOM	12405	CD	GLU D 281	35.016	123.853	76.670	1.00	22.51	C
ATOM	12406	OE1	GLU D 281	35.522	122.911	77.312	1.00	24.35	O
ATOM	12407	OE2	GLU D 281	34.597	124.871	77.242	1.00	22.76	O
ATOM	12408	C	GLU D 281	35.877	121.174	72.523	1.00	21.82	C
ATOM	12409	O	GLU D 281	37.006	121.501	72.122	1.00	21.34	O
ATOM	12410	N	ILE D 282	35.453	119.913	72.576	1.00	21.79	N
ATOM	12412	CA	ILE D 282	36.289	118.800	72.159	1.00	22.01	C
ATOM	12414	CB	ILE D 282	35.772	117.461	72.747	1.00	21.99	C
ATOM	12416	CG1	ILE D 282	35.959	117.470	74.259	1.00	22.50	C
ATOM	12419	CD1	ILE D 282	34.986	116.570	74.979	1.00	23.27	C
ATOM	12423	CG2	ILE D 282	36.494	116.248	72.121	1.00	20.81	C
ATOM	12427	C	ILE D 282	36.368	118.734	70.645	1.00	22.12	C
ATOM	12428	O	ILE D 282	37.413	118.378	70.122	1.00	22.28	O
ATOM	12429	N	VAL D 283	35.282	119.068	69.951	1.00	22.17	N
ATOM	12431	CA	VAL D 283	35.297	119.088	68.499	1.00	22.70	C
ATOM	12433	CB	VAL D 283	33.883	119.307	67.897	1.00	22.96	C
ATOM	12435	CG1	VAL D 283	33.956	119.665	66.436	1.00	22.97	C
ATOM	12439	CG2	VAL D 283	33.040	118.045	68.062	1.00	24.38	C
ATOM	12443	C	VAL D 283	36.283	120.163	68.037	1.00	22.61	C
ATOM	12444	O	VAL D 283	37.210	119.865	67.295	1.00	22.62	O
ATOM	12445	N	ASP D 284	36.088	121.392	68.512	1.00	22.66	N
ATOM	12447	CA	ASP D 284	36.959	122.533	68.215	1.00	22.70	C
ATOM	12449	CB	ASP D 284	36.633	123.736	69.115	1.00	22.97	C

325

ATOM	12452	CG	ASP D 284	35.339	124.424	68.740	1.00	23.36	C
ATOM	12453	OD1	ASP D 284	35.035	125.488	69.322	1.00	25.20	O
ATOM	12454	OD2	ASP D 284	34.549	123.964	67.897	1.00	24.52	O
ATOM	12455	C	ASP D 284	38.412	122.175	68.406	1.00	22.40	C
ATOM	12456	O	ASP D 284	39.231	122.440	67.554	1.00	23.22	O
ATOM	12457	N	PHE D 285	38.719	121.573	69.536	1.00	22.24	N
ATOM	12459	CA	PHE D 285	40.040	121.016	69.808	1.00	22.02	C
ATOM	12461	CB	PHE D 285	40.082	120.433	71.217	1.00	21.60	C
ATOM	12464	CG	PHE D 285	41.437	119.970	71.629	1.00	20.44	C
ATOM	12465	CD1	PHE D 285	42.418	120.872	71.940	1.00	20.37	C
ATOM	12467	CE1	PHE D 285	43.658	120.443	72.320	1.00	19.67	C
ATOM	12469	CZ	PHE D 285	43.933	119.132	72.385	1.00	18.57	C
ATOM	12471	CE2	PHE D 285	42.984	118.230	72.077	1.00	19.85	C
ATOM	12473	CD2	PHE D 285	41.740	118.639	71.691	1.00	20.07	C
ATOM	12475	C	PHE D 285	40.520	119.941	68.820	1.00	22.57	C
ATOM	12476	O	PHE D 285	41.611	120.086	68.279	1.00	23.04	O
ATOM	12477	N	ALA D 286	39.754	118.869	68.587	1.00	22.62	N
ATOM	12479	CA	ALA D 286	40.178	117.847	67.617	1.00	23.09	C
ATOM	12481	CB	ALA D 286	39.134	116.752	67.491	1.00	23.17	C
ATOM	12485	C	ALA D 286	40.513	118.405	66.219	1.00	23.54	C
ATOM	12486	O	ALA D 286	41.352	117.849	65.515	1.00	23.29	O
ATOM	12487	N	LYS D 287	39.852	119.497	65.833	1.00	23.97	N
ATOM	12489	CA	LYS D 287	40.030	120.100	64.525	1.00	24.53	C
ATOM	12491	CB	LYS D 287	38.860	121.077	64.177	1.00	25.33	C
ATOM	12494	CG	LYS D 287	37.481	120.465	63.567	1.00	27.96	C
ATOM	12497	CD	LYS D 287	37.368	118.867	63.694	1.00	32.35	C
ATOM	12500	CE	LYS D 287	35.911	118.136	63.551	1.00	33.10	C
ATOM	12503	NZ	LYS D 287	34.754	118.860	62.906	1.00	33.08	N
ATOM	12507	C	LYS D 287	41.399	120.800	64.479	1.00	24.04	C
ATOM	12508	O	LYS D 287	41.974	120.936	63.395	1.00	24.35	O
ATOM	12509	N	GLN D 288	41.919	121.225	65.641	1.00	23.24	N
ATOM	12511	CA	GLN D 288	43.290	121.804	65.768	1.00	22.64	C
ATOM	12513	CB	GLN D 288	43.377	122.829	66.910	1.00	22.82	C
ATOM	12516	CG	GLN D 288	42.381	123.965	66.878	1.00	23.86	C
ATOM	12519	CD	GLN D 288	42.710	124.969	65.844	1.00	26.39	C
ATOM	12520	OE1	GLN D 288	43.848	125.429	65.755	1.00	29.45	O
ATOM	12521	NE2	GLN D 288	41.729	125.323	65.041	1.00	27.81	N
ATOM	12524	C	GLN D 288	44.446	120.807	66.017	1.00	21.77	C
ATOM	12525	O	GLN D 288	45.604	121.213	65.961	1.00	21.00	O
ATOM	12526	N	VAL D 289	44.156	119.538	66.324	1.00	21.18	N
ATOM	12528	CA	VAL D 289	45.220	118.544	66.510	1.00	20.73	C
ATOM	12530	CB	VAL D 289	44.738	117.276	67.243	1.00	20.79	C
ATOM	12532	CG1	VAL D 289	45.885	116.238	67.403	1.00	19.29	C
ATOM	12536	CG2	VAL D 289	44.129	117.651	68.609	1.00	20.99	C
ATOM	12540	C	VAL D 289	45.789	118.159	65.143	1.00	20.90	C
ATOM	12541	O	VAL D 289	45.039	117.683	64.287	1.00	20.95	O
ATOM	12542	N	PRO D 290	47.091	118.396	64.912	1.00	20.70	N
ATOM	12543	CA	PRO D 290	47.705	118.003	63.647	1.00	20.51	C

326

ATOM 12545	CB	PRO D 290	49.170	118.393	63.854	1.00	20.50	C
ATOM 12548	CG	PRO D 290	49.114	119.490	64.867	1.00	20.21	C
ATOM 12551	CD	PRO D 290	48.068	119.071	65.795	1.00	20.24	C
ATOM 12554	C	PRO D 290	47.537	116.501	63.361	1.00	21.20	C
ATOM 12555	O	PRO D 290	47.848	115.674	64.219	1.00	20.62	O
ATOM 12556	N	GLY D 291	47.026	116.169	62.171	1.00	22.22	N
ATOM 12558	CA	GLY D 291	46.806	114.792	61.762	1.00	22.96	C
ATOM 12561	C	GLY D 291	45.325	114.489	61.588	1.00	23.80	C
ATOM 12562	O	GLY D 291	44.927	113.845	60.601	1.00	24.45	O
ATOM 12563	N	PHE D 292	44.518	114.949	62.553	1.00	23.74	N
ATOM 12565	CA	PHE D 292	43.083	114.699	62.583	1.00	23.53	C
ATOM 12567	CB	PHE D 292	42.446	115.495	63.727	1.00	23.16	C
ATOM 12570	CG	PHE D 292	41.103	115.012	64.091	1.00	21.53	C
ATOM 12571	CD1	PHE D 292	40.955	113.843	64.802	1.00	22.59	C
ATOM 12573	CE1	PHE D 292	39.709	113.365	65.109	1.00	23.64	C
ATOM 12575	CZ	PHE D 292	38.581	114.057	64.686	1.00	22.30	C
ATOM 12577	CE2	PHE D 292	38.734	115.203	63.973	1.00	21.89	C
ATOM 12579	CD2	PHE D 292	39.989	115.678	63.677	1.00	21.09	C
ATOM 12581	C	PHE D 292	42.343	114.989	61.252	1.00	24.42	C
ATOM 12582	O	PHE D 292	41.609	114.121	60.744	1.00	23.56	O
ATOM 12583	N	LEU D 293	42.536	116.193	60.697	1.00	25.57	N
ATOM 12585	CA	LEU D 293	41.798	116.611	59.489	1.00	26.53	C
ATOM 12587	CB	LEU D 293	41.717	118.146	59.358	1.00	26.83	C
ATOM 12590	CG	LEU D 293	41.021	118.951	60.490	1.00	28.44	C
ATOM 12592	CD1	LEU D 293	41.363	120.447	60.419	1.00	29.31	C
ATOM 12596	CD2	LEU D 293	39.489	118.773	60.545	1.00	28.73	C
ATOM 12600	C	LEU D 293	42.361	115.993	58.202	1.00	26.86	C
ATOM 12601	O	LEU D 293	41.711	116.044	57.165	1.00	26.99	O
ATOM 12602	N	GLN D 294	43.553	115.404	58.277	1.00	27.57	N
ATOM 12604	CA	GLN D 294	44.088	114.555	57.195	1.00	28.18	C
ATOM 12606	CB	GLN D 294	45.650	114.549	57.221	1.00	29.08	C
ATOM 12609	CG	GLN D 294	46.375	113.374	57.995	1.00	29.83	C
ATOM 12612	CD	GLN D 294	47.882	113.628	58.254	1.00	31.21	C
ATOM 12613	OE1	GLN D 294	48.653	112.690	58.434	1.00	35.09	O
ATOM 12614	NE2	GLN D 294	48.277	114.878	58.300	1.00	31.40	N
ATOM 12617	C	GLN D 294	43.520	113.100	57.194	1.00	27.84	C
ATOM 12618	O	GLN D 294	43.881	112.296	56.330	1.00	27.73	O
ATOM 12619	N	LEU D 295	42.649	112.773	58.161	1.00	27.04	N
ATOM 12621	CA	LEU D 295	41.918	111.509	58.187	1.00	25.66	C
ATOM 12623	CB	LEU D 295	41.611	111.090	59.633	1.00	25.33	C
ATOM 12626	CG	LEU D 295	42.789	110.608	60.478	1.00	23.90	C
ATOM 12628	CD1	LEU D 295	42.330	110.230	61.882	1.00	22.76	C
ATOM 12632	CD2	LEU D 295	43.509	109.447	59.805	1.00	22.45	C
ATOM 12636	C	LEU D 295	40.630	111.676	57.409	1.00	25.12	C
ATOM 12637	O	LEU D 295	40.140	112.781	57.283	1.00	24.36	O
ATOM 12638	N	GLY D 296	40.078	110.571	56.912	1.00	24.98	N
ATOM 12640	CA	GLY D 296	38.788	110.591	56.251	1.00	25.23	C
ATOM 12643	C	GLY D 296	37.695	111.063	57.188	1.00	25.63	C

327

ATOM	12644	O	GLY D 296	37.828	110.926	58.383	1.00	26.10	O
ATOM	12645	N	ARG D 297	36.606	111.620	56.665	1.00	26.28	N
ATOM	12647	CA	ARG D 297	35.548	112.157	57.527	1.00	26.54	C
ATOM	12649	CB	ARG D 297	34.434	112.786	56.700	1.00	26.90	C
ATOM	12652	CG	ARG D 297	33.485	113.685	57.498	1.00	29.64	C
ATOM	12655	CD	ARG D 297	32.206	114.073	56.720	1.00	33.39	C
ATOM	12658	NE	ARG D 297	31.164	114.678	57.568	1.00	36.49	N
ATOM	12660	CZ	ARG D 297	30.052	114.061	58.027	1.00	39.03	C
ATOM	12661	NH1	ARG D 297	29.786	112.775	57.750	1.00	39.92	N
ATOM	12664	NH2	ARG D 297	29.191	114.745	58.787	1.00	39.05	N
ATOM	12667	C	ARG D 297	34.972	111.079	58.443	1.00	26.10	C
ATOM	12668	O	ARG D 297	34.630	111.363	59.595	1.00	25.41	O
ATOM	12669	N	GLU D 298	34.880	109.853	57.916	1.00	25.79	N
ATOM	12671	CA	GLU D 298	34.324	108.709	58.638	1.00	25.76	C
ATOM	12673	CB	GLU D 298	34.363	107.457	57.760	1.00	26.37	C
ATOM	12676	CG	GLU D 298	33.086	106.639	57.739	1.00	28.91	C
ATOM	12679	CD	GLU D 298	32.357	106.757	56.418	1.00	32.85	C
ATOM	12680	OE1	GLU D 298	31.774	107.844	56.148	1.00	35.69	O
ATOM	12681	OE2	GLU D 298	32.379	105.767	55.648	1.00	35.42	O
ATOM	12682	C	GLU D 298	35.097	108.436	59.925	1.00	24.94	C
ATOM	12683	O	GLU D 298	34.507	108.340	61.022	1.00	24.94	O
ATOM	12684	N	ASP D 299	36.415	108.311	59.770	1.00	23.72	N
ATOM	12686	CA	ASP D 299	37.321	108.057	60.884	1.00	22.63	C
ATOM	12688	CB	ASP D 299	38.712	107.756	60.374	1.00	22.35	C
ATOM	12691	CG	ASP D 299	38.857	106.328	59.985	1.00	23.42	C
ATOM	12692	OD1	ASP D 299	37.825	105.618	60.008	1.00	22.19	O
ATOM	12693	OD2	ASP D 299	39.950	105.818	59.649	1.00	27.24	O
ATOM	12694	C	ASP D 299	37.385	109.175	61.883	1.00	21.89	C
ATOM	12695	O	ASP D 299	37.517	108.919	63.058	1.00	21.49	O
ATOM	12696	N	GLN D 300	37.307	110.415	61.421	1.00	21.38	N
ATOM	12698	CA	GLN D 300	37.217	111.550	62.326	1.00	20.93	C
ATOM	12700	CB	GLN D 300	37.044	112.846	61.538	1.00	20.99	C
ATOM	12703	CG	GLN D 300	38.286	113.275	60.758	1.00	21.23	C
ATOM	12706	CD	GLN D 300	38.076	114.518	59.908	1.00	18.90	C
ATOM	12707	OE1	GLN D 300	37.373	115.450	60.302	1.00	18.65	O
ATOM	12708	NE2	GLN D 300	38.696	114.529	58.747	1.00	17.75	N
ATOM	12711	C	GLN D 300	36.017	111.354	63.232	1.00	20.70	C
ATOM	12712	O	GLN D 300	36.083	111.596	64.438	1.00	20.60	O
ATOM	12713	N	ILE D 301	34.911	110.922	62.629	1.00	20.41	N
ATOM	12715	CA	ILE D 301	33.645	110.807	63.342	1.00	20.32	C
ATOM	12717	CB	ILE D 301	32.430	110.539	62.342	1.00	20.75	C
ATOM	12719	CG1	ILE D 301	31.698	111.842	62.000	1.00	21.61	C
ATOM	12722	CD1	ILE D 301	31.071	111.821	60.585	1.00	23.12	C
ATOM	12726	CG2	ILE D 301	31.376	109.561	62.898	1.00	21.24	C
ATOM	12730	C	ILE D 301	33.773	109.734	64.396	1.00	19.30	C
ATOM	12731	O	ILE D 301	33.405	109.956	65.535	1.00	18.56	O
ATOM	12732	N	ALA D 302	34.308	108.591	63.979	1.00	18.64	N
ATOM	12734	CA	ALA D 302	34.464	107.424	64.811	1.00	18.49	C

328

ATOM 12736	CB	ALA D 302	34.989	106.285	63.975	1.00	18.24	C
ATOM 12740	C	ALA D 302	35.392	107.675	66.004	1.00	18.94	C
ATOM 12741	O	ALA D 302	35.089	107.258	67.112	1.00	19.46	O
ATOM 12742	N	LEU D 303	36.514	108.359	65.779	1.00	19.14	N
ATOM 12744	CA	LEU D 303	37.488	108.638	66.827	1.00	19.01	C
ATOM 12746	CB	LEU D 303	38.767	109.255	66.259	1.00	18.59	C
ATOM 12749	CG	LEU D 303	39.571	108.400	65.304	1.00	18.48	C
ATOM 12751	CD1	LEU D 303	40.776	109.135	64.828	1.00	18.54	C
ATOM 12755	CD2	LEU D 303	39.963	107.096	65.946	1.00	19.04	C
ATOM 12759	C	LEU D 303	36.926	109.599	67.842	1.00	19.75	C
ATOM 12760	O	LEU D 303	37.207	109.466	69.014	1.00	20.11	O
ATOM 12761	N	LEU D 304	36.162	110.583	67.396	1.00	20.37	N
ATOM 12763	CA	LEU D 304	35.606	111.578	68.302	1.00	21.24	C
ATOM 12765	CB	LEU D 304	35.090	112.794	67.533	1.00	21.60	C
ATOM 12768	CG	LEU D 304	36.047	113.963	67.403	1.00	22.91	C
ATOM 12770	CD1	LEU D 304	35.301	115.085	66.740	1.00	23.49	C
ATOM 12774	CD2	LEU D 304	36.599	114.368	68.770	1.00	23.75	C
ATOM 12778	C	LEU D 304	34.450	111.005	69.082	1.00	21.38	C
ATOM 12779	O	LEU D 304	34.229	111.379	70.230	1.00	21.95	O
ATOM 12780	N	LYS D 305	33.690	110.124	68.449	1.00	21.59	N
ATOM 12782	CA	LYS D 305	32.502	109.564	69.064	1.00	22.10	C
ATOM 12784	CB	LYS D 305	31.758	108.677	68.078	1.00	22.53	C
ATOM 12787	CG	LYS D 305	30.328	108.350	68.468	1.00	24.98	C
ATOM 12790	CD	LYS D 305	29.521	107.812	67.266	1.00	27.56	C
ATOM 12793	CE	LYS D 305	28.563	106.702	67.654	1.00	28.13	C
ATOM 12796	NZ	LYS D 305	27.205	107.285	67.902	1.00	30.85	N
ATOM 12800	C	LYS D 305	32.914	108.768	70.288	1.00	21.70	C
ATOM 12801	O	LYS D 305	32.287	108.868	71.324	1.00	22.09	O
ATOM 12802	N	ALA D 306	34.001	108.022	70.160	1.00	21.18	N
ATOM 12804	CA	ALA D 306	34.567	107.235	71.239	1.00	20.90	C
ATOM 12806	CB	ALA D 306	35.573	106.256	70.663	1.00	20.80	C
ATOM 12810	C	ALA D 306	35.260	108.088	72.286	1.00	21.39	C
ATOM 12811	O	ALA D 306	35.157	107.824	73.476	1.00	21.09	O
ATOM 12812	N	SER D 307	35.992	109.098	71.824	1.00	21.92	N
ATOM 12814	CA	SER D 307	36.969	109.802	72.650	1.00	22.50	C
ATOM 12816	CB	SER D 307	37.996	110.563	71.787	1.00	22.64	C
ATOM 12819	OG	SER D 307	39.257	109.880	71.824	1.00	25.98	O
ATOM 12821	C	SER D 307	36.331	110.791	73.585	1.00	22.17	C
ATOM 12822	O	SER D 307	36.852	111.052	74.661	1.00	22.21	O
ATOM 12823	N	THR D 308	35.206	111.340	73.152	1.00	21.79	N
ATOM 12825	CA	THR D 308	34.552	112.457	73.819	1.00	21.33	C
ATOM 12827	CB	THR D 308	33.269	112.742	73.087	1.00	21.46	C
ATOM 12829	OG1	THR D 308	33.608	113.275	71.802	1.00	21.01	O
ATOM 12831	CG2	THR D 308	32.442	113.843	73.775	1.00	21.81	C
ATOM 12835	C	THR D 308	34.288	112.248	75.304	1.00	21.10	C
ATOM 12836	O	THR D 308	34.700	113.058	76.126	1.00	21.23	O
ATOM 12837	N	ILE D 309	33.623	111.162	75.669	1.00	20.75	N
ATOM 12839	CA	ILE D 309	33.423	110.900	77.087	1.00	20.29	C

329

ATOM 12841	CB ILE D 309	32.512	109.705	77.301	1.00	20.15	C
ATOM 12843	CG1 ILE D 309	32.088	109.627	78.769	1.00	20.44	C
ATOM 12846	CD1 ILE D 309	31.347	110.861	79.247	1.00	20.84	C
ATOM 12850	CG2 ILE D 309	33.208	108.413	76.873	1.00	20.07	C
ATOM 12854	C ILE D 309	34.758	110.692	77.837	1.00	20.07	C
ATOM 12855	O ILE D 309	34.842	111.020	79.042	1.00	20.47	O
ATOM 12856	N GLU D 310	35.770	110.128	77.157	1.00	18.95	N
ATOM 12858	CA GLU D 310	37.076	109.860	77.804	1.00	18.40	C
ATOM 12860	CB GLU D 310	37.968	108.893	76.977	1.00	17.89	C
ATOM 12863	CG GLU D 310	37.203	107.662	76.506	1.00	17.62	C
ATOM 12866	CD GLU D 310	38.029	106.432	76.138	1.00	16.74	C
ATOM 12867	OE1 GLU D 310	39.275	106.441	76.130	1.00	17.83	O
ATOM 12868	OE2 GLU D 310	37.390	105.427	75.831	1.00	14.78	O
ATOM 12869	C GLU D 310	37.787	111.189	78.103	1.00	17.84	C
ATOM 12870	O GLU D 310	38.389	111.363	79.139	1.00	17.21	O
ATOM 12871	N ILE D 311	37.648	112.133	77.188	1.00	17.97	N
ATOM 12873	CA ILE D 311	38.274	113.445	77.287	1.00	18.00	C
ATOM 12875	CB ILE D 311	38.215	114.184	75.891	1.00	17.94	C
ATOM 12877	CG1 ILE D 311	39.246	113.548	74.950	1.00	18.50	C
ATOM 12880	CD1 ILE D 311	39.166	114.008	73.462	1.00	18.54	C
ATOM 12884	CG2 ILE D 311	38.456	115.690	76.033	1.00	16.96	C
ATOM 12888	C ILE D 311	37.601	114.257	78.390	1.00	17.89	C
ATOM 12889	O ILE D 311	38.291	114.914	79.170	1.00	17.48	O
ATOM 12890	N MET D 312	36.266	114.203	78.434	1.00	18.03	N
ATOM 12892	CA MET D 312	35.460	114.829	79.497	1.00	18.46	C
ATOM 12894	CB MET D 312	33.963	114.537	79.279	1.00	18.58	C
ATOM 12897	CG MET D 312	33.336	115.223	78.107	1.00	19.01	C
ATOM 12900	SD MET D 312	31.760	114.482	77.692	1.00	21.45	S
ATOM 12901	CE MET D 312	30.718	115.688	78.243	1.00	23.95	C
ATOM 12905	C MET D 312	35.836	114.286	80.874	1.00	18.48	C
ATOM 12906	O MET D 312	35.800	114.994	81.877	1.00	18.43	O
ATOM 12907	N LEU D 313	36.152	113.006	80.896	1.00	18.57	N
ATOM 12909	CA LEU D 313	36.513	112.322	82.098	1.00	19.20	C
ATOM 12911	CB LEU D 313	36.602	110.821	81.795	1.00	19.54	C
ATOM 12914	CG LEU D 313	35.268	110.100	81.922	1.00	19.89	C
ATOM 12916	CD1 LEU D 313	35.355	108.731	81.246	1.00	21.07	C
ATOM 12920	CD2 LEU D 313	34.876	109.976	83.398	1.00	19.05	C
ATOM 12924	C LEU D 313	37.849	112.830	82.567	1.00	19.34	C
ATOM 12925	O LEU D 313	38.080	113.038	83.746	1.00	19.32	O
ATOM 12926	N LEU D 314	38.737	112.989	81.608	1.00	19.77	N
ATOM 12928	CA LEU D 314	40.102	113.411	81.842	1.00	20.55	C
ATOM 12930	CB LEU D 314	40.856	113.304	80.522	1.00	20.62	C
ATOM 12933	CG LEU D 314	42.241	112.700	80.428	1.00	21.87	C
ATOM 12935	CD1 LEU D 314	42.504	111.631	81.404	1.00	22.40	C
ATOM 12939	CD2 LEU D 314	42.390	112.175	79.014	1.00	23.96	C
ATOM 12943	C LEU D 314	40.117	114.859	82.333	1.00	20.82	C
ATOM 12944	O LEU D 314	40.898	115.226	83.202	1.00	20.41	O
ATOM 12945	N GLU D 315	39.225	115.658	81.740	1.00	21.66	N

330

ATOM	12947	CA	GLU D 315	39.062	117.085	82.029	1.00	21.96	C
ATOM	12949	CB	GLU D 315	38.301	117.787	80.892	1.00	22.44	C
ATOM	12952	CG	GLU D 315	39.159	118.050	79.651	1.00	25.65	C
ATOM	12955	CD	GLU D 315	40.257	119.085	79.890	1.00	29.69	C
ATOM	12956	OE1	GLU D 315	39.934	120.148	80.471	1.00	32.41	O
ATOM	12957	OE2	GLU D 315	41.434	118.839	79.511	1.00	30.62	O
ATOM	12958	C	GLU D 315	38.318	117.271	83.338	1.00	21.05	C
ATOM	12959	O	GLU D 315	38.530	118.266	84.046	1.00	21.15	O
ATOM	12960	N	THR D 316	37.451	116.312	83.651	1.00	19.95	N
ATOM	12962	CA	THR D 316	36.697	116.323	84.895	1.00	19.30	C
ATOM	12964	CB	THR D 316	35.616	115.211	84.871	1.00	18.81	C
ATOM	12966	OG1	THR D 316	34.491	115.641	84.096	1.00	16.74	O
ATOM	12968	CG2	THR D 316	35.022	114.957	86.258	1.00	18.57	C
ATOM	12972	C	THR D 316	37.696	116.153	86.052	1.00	19.52	C
ATOM	12973	O	THR D 316	37.687	116.924	87.042	1.00	19.17	O
ATOM	12974	N	ALA D 317	38.578	115.166	85.872	1.00	19.45	N
ATOM	12976	CA	ALA D 317	39.610	114.797	86.842	1.00	19.58	C
ATOM	12978	CB	ALA D 317	40.431	113.613	86.299	1.00	19.72	C
ATOM	12982	C	ALA D 317	40.533	115.956	87.133	1.00	19.30	C
ATOM	12983	O	ALA D 317	40.906	116.205	88.274	1.00	18.64	O
ATOM	12984	N	ARG D 318	40.886	116.633	86.047	1.00	19.70	N
ATOM	12986	CA	ARG D 318	41.825	117.748	86.005	1.00	20.05	C
ATOM	12988	CB	ARG D 318	41.897	118.209	84.552	1.00	20.24	C
ATOM	12991	CG	ARG D 318	42.857	119.365	84.244	1.00	22.52	C
ATOM	12994	CD	ARG D 318	42.898	119.694	82.750	1.00	24.07	C
ATOM	12997	NE	ARG D 318	44.023	120.541	82.434	1.00	25.37	N
ATOM	12999	CZ	ARG D 318	44.650	120.582	81.273	1.00	27.69	C
ATOM	13000	NH1	ARG D 318	44.284	119.804	80.261	1.00	29.30	N
ATOM	13003	NH2	ARG D 318	45.658	121.431	81.123	1.00	28.26	N
ATOM	13006	C	ARG D 318	41.422	118.921	86.898	1.00	19.78	C
ATOM	13007	O	ARG D 318	42.277	119.707	87.320	1.00	18.62	O
ATOM	13008	N	ARG D 319	40.110	118.998	87.152	1.00	20.23	N
ATOM	13010	CA	ARG D 319	39.430	120.077	87.865	1.00	20.95	C
ATOM	13012	CB	ARG D 319	38.140	120.431	87.122	1.00	21.55	C
ATOM	13015	CG	ARG D 319	38.327	120.791	85.656	1.00	24.18	C
ATOM	13018	CD	ARG D 319	38.481	122.302	85.384	1.00	28.57	C
ATOM	13021	NE	ARG D 319	38.068	122.655	84.029	1.00	31.34	N
ATOM	13023	CZ	ARG D 319	38.648	122.190	82.929	1.00	34.77	C
ATOM	13024	NH1	ARG D 319	39.675	121.348	82.992	1.00	36.10	N
ATOM	13027	NH2	ARG D 319	38.193	122.558	81.745	1.00	37.68	N
ATOM	13030	C	ARG D 319	39.035	119.718	89.295	1.00	20.60	C
ATOM	13031	O	ARG D 319	38.483	120.551	90.020	1.00	20.22	O
ATOM	13032	N	TYR D 320	39.317	118.479	89.682	1.00	20.75	N
ATOM	13034	CA	TYR D 320	38.916	117.943	90.971	1.00	20.72	C
ATOM	13036	CB	TYR D 320	39.061	116.422	90.978	1.00	20.70	C
ATOM	13039	CG	TYR D 320	38.692	115.770	92.292	1.00	20.35	C
ATOM	13040	CD1	TYR D 320	37.376	115.469	92.591	1.00	19.94	C
ATOM	13042	CE1	TYR D 320	37.032	114.857	93.781	1.00	19.67	C

331

ATOM 13044 CZ TYR D 320	38.007 114.552 94.694 1.00 19.88	C
ATOM 13045 OH TYR D 320	37.652 113.950 95.881 1.00 20.01	O
ATOM 13047 CE2 TYR D 320	39.324 114.845 94.422 1.00 19.88	C
ATOM 13049 CD2 TYR D 320	39.661 115.442 93.224 1.00 20.15	C
ATOM 13051 C TYR D 320	39.741 118.546 92.101 1.00 20.94	C
ATOM 13052 O TYR D 320	40.968 118.564 92.056 1.00 20.78	O
ATOM 13053 N ASN D 321	39.022 119.013 93.111 1.00 21.28	N
ATOM 13055 CA ASN D 321	39.555 119.586 94.329 1.00 21.69	C
ATOM 13057 CB ASN D 321	38.626 120.746 94.733 1.00 21.83	C
ATOM 13060 CG ASN D 321	39.303 121.809 95.576 1.00 20.95	C
ATOM 13061 OD1 ASN D 321	39.061 122.995 95.390 1.00 19.43	O
ATOM 13062 ND2 ASN D 321	40.127 121.393 96.515 1.00 20.93	N
ATOM 13065 C ASN D 321	39.542 118.458 95.387 1.00 22.23	C
ATOM 13066 O ASN D 321	38.468 117.931 95.726 1.00 21.54	O
ATOM 13067 N HIS D 322	40.724 118.085 95.891 1.00 22.96	N
ATOM 13069 CA HIS D 322	40.818 117.021 96.900 1.00 23.77	C
ATOM 13071 CB HIS D 322	42.149 116.238 96.795 1.00 24.07	C
ATOM 13074 CG HIS D 322	42.101 114.884 97.456 1.00 25.78	C
ATOM 13075 ND1 HIS D 322	41.106 113.958 97.202 1.00 26.82	N
ATOM 13077 CE1 HIS D 322	41.309 112.878 97.935 1.00 26.95	C
ATOM 13079 NE2 HIS D 322	42.392 113.070 98.667 1.00 27.14	N
ATOM 13081 CD2 HIS D 322	42.902 114.319 98.393 1.00 26.71	C
ATOM 13083 C HIS D 322	40.538 117.501 98.354 1.00 23.63	C
ATOM 13084 O HIS D 322	40.309 116.683 99.256 1.00 23.64	O
ATOM 13085 N GLU D 323	40.532 118.817 98.561 1.00 23.40	N
ATOM 13087 CA GLU D 323	40.110 119.408 99.826 1.00 23.21	C
ATOM 13089 CB GLU D 323	40.597 120.851 99.929 1.00 23.45	C
ATOM 13092 CG GLU D 323	42.102 121.033 99.857 1.00 23.68	C
ATOM 13095 CD GLU D 323	42.808 120.540 101.104 1.00 24.52	C
ATOM 13096 OE1 GLU D 323	42.437 120.944 102.248 1.00 23.26	O
ATOM 13097 OE2 GLU D 323	43.748 119.744 100.914 1.00 24.55	O
ATOM 13098 C GLU D 323	38.590 119.418 99.949 1.00 22.98	C
ATOM 13099 O GLU D 323	38.043 119.013 100.970 1.00 22.89	O
ATOM 13100 N THR D 324	37.917 119.905 98.908 1.00 22.80	N
ATOM 13102 CA THR D 324	36.462 120.107 98.930 1.00 22.50	C
ATOM 13104 CB THR D 324	36.072 121.409 98.159 1.00 22.59	C
ATOM 13106 OG1 THR D 324	36.456 121.322 96.782 1.00 22.02	O
ATOM 13108 CG2 THR D 324	36.863 122.623 98.664 1.00 22.66	C
ATOM 13112 C THR D 324	35.689 118.910 98.372 1.00 22.31	C
ATOM 13113 O THR D 324	34.472 118.857 98.498 1.00 21.79	O
ATOM 13114 N GLU D 325	36.414 117.955 97.778 1.00 22.45	N
ATOM 13116 CA GLU D 325	35.851 116.735 97.156 1.00 22.39	C
ATOM 13118 CB GLU D 325	35.239 115.774 98.220 1.00 22.70	C
ATOM 13121 CG GLU D 325	36.033 115.582 99.525 1.00 23.36	C
ATOM 13124 CD GLU D 325	37.010 114.396 99.538 1.00 24.78	C
ATOM 13125 OE1 GLU D 325	37.499 114.040 100.635 1.00 25.95	O
ATOM 13126 OE2 GLU D 325	37.322 113.820 98.477 1.00 26.11	O
ATOM 13127 C GLU D 325	34.834 117.048 96.035 1.00 21.81	C

332

ATOM 13128	O	GLU D 325	33.797	116.385	95.914	1.00	21.16	O
ATOM 13129	N	CYS D 326	35.157	118.052	95.215	1.00	21.65	N
ATOM 13131	CA	CYS D 326	34.253	118.552	94.164	1.00	21.65	C
ATOM 13133	CB	CYS D 326	33.624	119.877	94.582	1.00	21.65	C
ATOM 13136	SG	CYS D 326	32.795	119.862	96.151	1.00	20.33	S
ATOM 13137	C	CYS D 326	34.934	118.851	92.850	1.00	21.87	C
ATOM 13138	O	CYS D 326	36.047	119.355	92.836	1.00	21.29	O
ATOM 13139	N	ILE D 327	34.223	118.615	91.751	1.00	22.65	N
ATOM 13141	CA	ILE D 327	34.701	119.019	90.434	1.00	23.54	C
ATOM 13143	CB	ILE D 327	34.214	118.084	89.352	1.00	23.59	C
ATOM 13145	CG1	ILE D 327	34.606	116.645	89.673	1.00	24.93	C
ATOM 13148	CD1	ILE D 327	33.411	115.715	89.709	1.00	26.49	C
ATOM 13152	CG2	ILE D 327	34.824	118.469	88.031	1.00	24.21	C
ATOM 13156	C	ILE D 327	34.225	120.405	90.114	1.00	24.05	C
ATOM 13157	O	ILE D 327	33.115	120.761	90.420	1.00	23.55	O
ATOM 13158	N	THR D 328	35.078	121.152	89.432	1.00	25.57	N
ATOM 13160	CA	THR D 328	34.907	122.584	89.221	1.00	26.70	C
ATOM 13162	CB	THR D 328	36.032	123.326	89.998	1.00	26.94	C
ATOM 13164	OG1	THR D 328	36.042	122.900	91.376	1.00	26.95	O
ATOM 13166	CG2	THR D 328	35.787	124.845	90.035	1.00	27.12	C
ATOM 13170	C	THR D 328	34.969	122.925	87.724	1.00	27.26	C
ATOM 13171	O	THR D 328	35.959	123.493	87.259	1.00	27.63	O
ATOM 13172	N	ALA D 329	33.905	122.575	86.992	1.00	27.70	N
ATOM 13174	CA	ALA D 329	33.818	122.753	85.532	1.00	27.88	C
ATOM 13176	CB	ALA D 329	32.506	122.163	84.995	1.00	27.77	C
ATOM 13180	C	ALA D 329	33.937	124.212	85.116	1.00	27.79	C
ATOM 13181	O	ALA D 329	33.417	125.089	85.788	1.00	28.03	O
ATOM 13182	N	PHE D 333	30.476	127.084	90.472	1.00	24.39	N
ATOM 13184	CA	PHE D 333	30.201	125.947	89.594	1.00	24.53	C
ATOM 13186	CB	PHE D 333	30.414	126.341	88.126	1.00	24.62	C
ATOM 13189	CG	PHE D 333	29.333	127.245	87.582	1.00	26.25	C
ATOM 13190	CD1	PHE D 333	28.349	126.745	86.729	1.00	26.75	C
ATOM 13192	CE1	PHE D 333	27.348	127.573	86.234	1.00	27.17	C
ATOM 13194	CZ	PHE D 333	27.320	128.923	86.594	1.00	27.66	C
ATOM 13196	CE2	PHE D 333	28.291	129.435	87.450	1.00	27.27	C
ATOM 13198	CD2	PHE D 333	29.289	128.603	87.940	1.00	27.23	C
ATOM 13200	C	PHE D 333	31.031	124.711	89.961	1.00	24.03	C
ATOM 13201	O	PHE D 333	31.736	124.156	89.119	1.00	23.95	O
ATOM 13202	N	THR D 334	30.938	124.296	91.227	1.00	23.60	N
ATOM 13204	CA	THR D 334	31.488	123.015	91.690	1.00	23.28	C
ATOM 13206	CB	THR D 334	32.364	123.166	92.979	1.00	23.36	C
ATOM 13208	OG1	THR D 334	31.534	123.368	94.135	1.00	22.00	O
ATOM 13210	CG2	THR D 334	33.275	124.392	92.916	1.00	23.52	C
ATOM 13214	C	THR D 334	30.372	121.998	91.953	1.00	22.94	C
ATOM 13215	O	THR D 334	29.252	122.372	92.288	1.00	23.01	O
ATOM 13216	N	TYR D 335	30.699	120.714	91.816	1.00	22.58	N
ATOM 13218	CA	TYR D 335	29.741	119.624	91.993	1.00	22.37	C
ATOM 13220	CB	TYR D 335	29.286	119.078	90.631	1.00	22.28	C

333

ATOM	13223	CG	TYR D 335	28.726	120.162	89.738	1.00	22.32	C
ATOM	13224	CD1	TYR D 335	29.543	120.858	88.865	1.00	22.00	C
ATOM	13226	CE1	TYR D 335	29.034	121.869	88.062	1.00	21.64	C
ATOM	13228	CZ	TYR D 335	27.708	122.196	88.137	1.00	21.25	C
ATOM	13229	OH	TYR D 335	27.223	123.193	87.340	1.00	21.55	O
ATOM	13231	CE2	TYR D 335	26.876	121.533	89.000	1.00	21.54	C
ATOM	13233	CD2	TYR D 335	27.386	120.523	89.799	1.00	22.31	C
ATOM	13235	C	TYR D 335	30.379	118.518	92.818	1.00	22.12	C
ATOM	13236	O	TYR D 335	31.382	117.931	92.404	1.00	22.18	O
ATOM	13237	N	SER D 336	29.815	118.262	93.996	1.00	21.64	N
ATOM	13239	CA	SER D 336	30.249	117.165	94.851	1.00	21.45	C
ATOM	13241	CB	SER D 336	29.778	117.429	96.261	1.00	21.14	C
ATOM	13244	OG	SER D 336	28.370	117.450	96.271	1.00	20.49	O
ATOM	13246	C	SER D 336	29.646	115.839	94.375	1.00	21.75	C
ATOM	13247	O	SER D 336	28.911	115.811	93.388	1.00	21.91	O
ATOM	13248	N	LYS D 337	29.945	114.743	95.080	1.00	21.87	N
ATOM	13250	CA	LYS D 337	29.284	113.451	94.832	1.00	21.71	C
ATOM	13252	CB	LYS D 337	29.759	112.396	95.827	1.00	21.69	C
ATOM	13255	CG	LYS D 337	30.993	111.632	95.402	1.00	22.07	C
ATOM	13258	CD	LYS D 337	31.741	111.100	96.629	1.00	22.88	C
ATOM	13261	CE	LYS D 337	32.805	110.094	96.242	1.00	23.03	C
ATOM	13264	NZ	LYS D 337	32.220	108.758	95.963	1.00	23.33	N
ATOM	13268	C	LYS D 337	27.766	113.581	94.944	1.00	21.72	C
ATOM	13269	O	LYS D 337	27.023	113.113	94.082	1.00	21.42	O
ATOM	13270	N	ASP D 338	27.322	114.228	96.021	1.00	21.83	N
ATOM	13272	CA	ASP D 338	25.900	114.419	96.288	1.00	21.83	C
ATOM	13274	CB	ASP D 338	25.697	115.180	97.604	1.00	21.84	C
ATOM	13277	CG	ASP D 338	24.259	115.141	98.086	1.00	21.87	C
ATOM	13278	OD1	ASP D 338	23.753	116.180	98.580	1.00	21.66	O
ATOM	13279	OD2	ASP D 338	23.564	114.107	98.005	1.00	22.04	O
ATOM	13280	C	ASP D 338	25.184	115.146	95.152	1.00	21.77	C
ATOM	13281	O	ASP D 338	24.025	114.848	94.860	1.00	21.70	O
ATOM	13282	N	ASP D 339	25.876	116.094	94.525	1.00	21.74	N
ATOM	13284	CA	ASP D 339	25.298	116.899	93.449	1.00	21.88	C
ATOM	13286	CB	ASP D 339	26.237	118.038	93.050	1.00	22.05	C
ATOM	13289	CG	ASP D 339	26.329	119.120	94.091	1.00	21.96	C
ATOM	13290	OD1	ASP D 339	25.299	119.470	94.707	1.00	22.87	O
ATOM	13291	OD2	ASP D 339	27.405	119.692	94.339	1.00	22.06	O
ATOM	13292	C	ASP D 339	25.003	116.080	92.203	1.00	21.86	C
ATOM	13293	O	ASP D 339	24.007	116.314	91.526	1.00	21.72	O
ATOM	13294	N	PHE D 340	25.888	115.146	91.879	1.00	21.93	N
ATOM	13296	CA	PHE D 340	25.628	114.243	90.774	1.00	21.96	C
ATOM	13298	CB	PHE D 340	26.787	113.275	90.563	1.00	21.67	C
ATOM	13301	CG	PHE D 340	27.923	113.834	89.737	1.00	20.36	C
ATOM	13302	CD1	PHE D 340	28.533	115.031	90.078	1.00	18.74	C
ATOM	13304	CE1	PHE D 340	29.580	115.525	89.340	1.00	18.16	C
ATOM	13306	CZ	PHE D 340	30.043	114.830	88.240	1.00	18.95	C
ATOM	13308	CE2	PHE D 340	29.459	113.620	87.883	1.00	18.94	C

334

ATOM 13310	CD2 PHE D 340	28.406	113.130	88.633	1.00	19.62	C
ATOM 13312	C PHE D 340	24.360	113.475	91.114	1.00	22.63	C
ATOM 13313	O PHE D 340	23.404	113.480	90.348	1.00	22.45	O
ATOM 13314	N HIS D 341	24.350	112.860	92.296	1.00	23.66	N
ATOM 13316	CA HIS D 341	23.235	112.022	92.750	1.00	24.57	C
ATOM 13318	CB HIS D 341	23.594	111.335	94.087	1.00	24.61	C
ATOM 13321	CG HIS D 341	22.528	110.415	94.606	1.00	24.90	C
ATOM 13322	ND1 HIS D 341	22.165	109.253	93.957	1.00	25.23	N
ATOM 13324	CE1 HIS D 341	21.201	108.657	94.638	1.00	25.18	C
ATOM 13326	NE2 HIS D 341	20.927	109.390	95.704	1.00	24.35	N
ATOM 13328	CD2 HIS D 341	21.743	110.494	95.708	1.00	24.37	C
ATOM 13330	C HIS D 341	21.887	112.777	92.841	1.00	25.22	C
ATOM 13331	O HIS D 341	20.837	112.182	92.612	1.00	25.40	O
ATOM 13332	N ARG D 342	21.921	114.076	93.141	1.00	25.94	N
ATOM 13334	CA ARG D 342	20.712	114.917	93.156	1.00	26.51	C
ATOM 13336	CB ARG D 342	21.001	116.260	93.843	1.00	26.53	C
ATOM 13339	CG ARG D 342	20.471	116.387	95.277	1.00	27.35	C
ATOM 13342	CD ARG D 342	21.546	116.453	96.376	1.00	28.04	C
ATOM 13345	NE ARG D 342	21.296	117.526	97.343	1.00	27.92	N
ATOM 13347	CZ ARG D 342	21.949	118.692	97.396	1.00	28.32	C
ATOM 13348	NH1 ARG D 342	22.929	118.984	96.539	1.00	27.50	N
ATOM 13351	NH2 ARG D 342	21.612	119.583	98.328	1.00	28.66	N
ATOM 13354	C ARG D 342	20.148	115.165	91.737	1.00	26.96	C
ATOM 13355	O ARG D 342	18.973	115.518	91.584	1.00	26.59	O
ATOM 13356	N ALA D 343	21.001	114.981	90.718	1.00	27.71	N
ATOM 13358	CA ALA D 343	20.621	115.056	89.297	1.00	28.17	C
ATOM 13360	CB ALA D 343	21.841	115.420	88.420	1.00	28.01	C
ATOM 13364	C ALA D 343	20.000	113.771	88.776	1.00	28.68	C
ATOM 13365	O ALA D 343	19.811	113.648	87.573	1.00	28.97	O
ATOM 13366	N GLY D 344	19.696	112.826	89.671	1.00	29.34	N
ATOM 13368	CA GLY D 344	19.109	111.539	89.319	1.00	29.76	C
ATOM 13371	C GLY D 344	20.107	110.430	88.982	1.00	30.22	C
ATOM 13372	O GLY D 344	19.692	109.326	88.648	1.00	30.33	O
ATOM 13373	N LEU D 345	21.409	110.703	89.079	1.00	30.59	N
ATOM 13375	CA LEU D 345	22.436	109.761	88.619	1.00	30.99	C
ATOM 13377	CB LEU D 345	23.785	110.482	88.392	1.00	31.13	C
ATOM 13380	CG LEU D 345	23.869	111.635	87.372	1.00	31.54	C
ATOM 13382	CD1 LEU D 345	25.317	111.914	87.000	1.00	31.62	C
ATOM 13386	CD2 LEU D 345	23.052	111.376	86.110	1.00	32.03	C
ATOM 13390	C LEU D 345	22.655	108.545	89.541	1.00	31.08	C
ATOM 13391	O LEU D 345	22.474	108.620	90.768	1.00	31.20	O
ATOM 13392	N GLN D 346	23.027	107.431	88.903	1.00	31.06	N
ATOM 13394	CA GLN D 346	23.442	106.191	89.556	1.00	31.00	C
ATOM 13396	CB GLN D 346	23.721	105.111	88.503	1.00	31.10	C
ATOM 13399	CG GLN D 346	22.582	104.170	88.205	1.00	31.85	C
ATOM 13402	CD GLN D 346	23.015	102.995	87.321	1.00	32.92	C
ATOM 13403	OE1 GLN D 346	22.733	101.826	87.639	1.00	33.78	O
ATOM 13404	NE2 GLN D 346	23.700	103.301	86.218	1.00	31.83	N

335

ATOM 13407 C GLN D 346	24.729	106.377	90.352	1.00	30.85	C
ATOM 13408 O GLN D 346	25.688	106.977	89.859	1.00	30.87	O
ATOM 13409 N VAL D 347	24.749	105.808	91.560	1.00	30.65	N
ATOM 13411 CA VAL D 347	25.959	105.682	92.394	1.00	30.36	C
ATOM 13413 CB VAL D 347	25.638	104.859	93.673	1.00	30.19	C
ATOM 13415 CG1 VAL D 347	26.909	104.399	94.373	1.00	29.60	C
ATOM 13419 CG2 VAL D 347	24.768	105.690	94.621	1.00	30.41	C
ATOM 13423 C VAL D 347	27.108	104.988	91.657	1.00	30.12	C
ATOM 13424 O VAL D 347	28.276	105.346	91.783	1.00	30.18	O
ATOM 13425 N GLU D 348	26.721	104.007	90.857	1.00	29.75	N
ATOM 13427 CA GLU D 348	27.602	103.018	90.263	1.00	29.12	C
ATOM 13429 CB GLU D 348	26.732	101.823	89.789	1.00	29.32	C
ATOM 13432 CG GLU D 348	25.344	101.775	90.485	1.00	30.20	C
ATOM 13435 CD GLU D 348	24.687	100.410	90.574	1.00	32.08	C
ATOM 13436 OE1 GLU D 348	25.304	99.410	90.160	1.00	34.02	O
ATOM 13437 OE2 GLU D 348	23.538	100.334	91.079	1.00	32.31	O
ATOM 13438 C GLU D 348	28.429	103.693	89.153	1.00	28.19	C
ATOM 13439 O GLU D 348	29.515	103.227	88.795	1.00	27.93	O
ATOM 13440 N PHE D 349	27.914	104.822	88.656	1.00	27.37	N
ATOM 13442 CA PHE D 349	28.647	105.740	87.768	1.00	26.58	C
ATOM 13444 CB PHE D 349	27.655	106.528	86.883	1.00	26.82	C
ATOM 13447 CG PHE D 349	28.311	107.529	85.946	1.00	27.76	C
ATOM 13448 CD1 PHE D 349	29.220	107.114	84.989	1.00	27.85	C
ATOM 13450 CE1 PHE D 349	29.801	108.004	84.136	1.00	27.86	C
ATOM 13452 CZ PHE D 349	29.497	109.347	84.222	1.00	29.09	C
ATOM 13454 CE2 PHE D 349	28.594	109.792	85.162	1.00	29.42	C
ATOM 13456 CD2 PHE D 349	28.000	108.885	86.019	1.00	29.04	C
ATOM 13458 C PHE D 349	29.508	106.723	88.561	1.00	25.28	C
ATOM 13459 O PHE D 349	30.659	106.943	88.219	1.00	24.79	O
ATOM 13460 N ILE D 350	28.932	107.300	89.613	1.00	24.05	N
ATOM 13462 CA ILE D 350	29.560	108.370	90.381	1.00	23.28	C
ATOM 13464 CB ILE D 350	28.574	108.917	91.482	1.00	23.37	C
ATOM 13466 CG1 ILE D 350	27.430	109.695	90.831	1.00	22.93	C
ATOM 13469 CD1 ILE D 350	26.212	109.857	91.698	1.00	21.90	C
ATOM 13473 CG2 ILE D 350	29.290	109.847	92.496	1.00	22.95	C
ATOM 13477 C ILE D 350	30.878	107.961	91.024	1.00	22.81	C
ATOM 13478 O ILE D 350	31.837	108.721	90.983	1.00	22.60	O
ATOM 13479 N ASN D 351	30.925	106.780	91.629	1.00	22.37	N
ATOM 13481 CA ASN D 351	32.086	106.381	92.427	1.00	22.38	C
ATOM 13483 CB ASN D 351	31.761	105.140	93.290	1.00	22.44	C
ATOM 13486 CG ASN D 351	30.794	105.452	94.453	1.00	22.56	C
ATOM 13487 OD1 ASN D 351	30.899	106.489	95.104	1.00	23.39	O
ATOM 13488 ND2 ASN D 351	29.861	104.544	94.710	1.00	20.88	N
ATOM 13491 C ASN D 351	33.393	106.197	91.599	1.00	22.35	C
ATOM 13492 O ASN D 351	34.446	106.707	91.999	1.00	21.94	O
ATOM 13493 N PRO D 352	33.343	105.466	90.477	1.00	22.41	N
ATOM 13494 CA PRO D 352	34.451	105.455	89.507	1.00	22.36	C
ATOM 13496 CB PRO D 352	33.926	104.530	88.402	1.00	22.66	C

336

ATOM	13499	CG	PRO D 352	32.935	103.627	89.100	1.00	22.54	C
ATOM	13502	CD	PRO D 352	32.280	104.516	90.085	1.00	22.68	C
ATOM	13505	C	PRO D 352	34.860	106.836	88.932	1.00	22.23	C
ATOM	13506	O	PRO D 352	36.065	107.048	88.772	1.00	21.99	O
ATOM	13507	N	ILE D 353	33.909	107.733	88.638	1.00	21.92	N
ATOM	13509	CA	ILE D 353	34.230	109.097	88.202	1.00	22.00	C
ATOM	13511	CB	ILE D 353	32.952	110.004	88.087	1.00	22.56	C
ATOM	13513	CG1	ILE D 353	32.008	109.566	86.971	1.00	23.46	C
ATOM	13516	CD1	ILE D 353	32.688	108.789	85.859	1.00	25.94	C
ATOM	13520	CG2	ILE D 353	33.330	111.482	87.823	1.00	23.55	C
ATOM	13524	C	ILE D 353	35.164	109.773	89.170	1.00	21.70	C
ATOM	13525	O	ILE D 353	36.158	110.370	88.769	1.00	21.04	O
ATOM	13526	N	PHE D 354	34.805	109.703	90.447	1.00	21.95	N
ATOM	13528	CA	PHE D 354	35.522	110.409	91.499	1.00	22.21	C
ATOM	13530	CB	PHE D 354	34.597	110.640	92.701	1.00	22.27	C
ATOM	13533	CG	PHE D 354	33.726	111.879	92.571	1.00	23.48	C
ATOM	13534	CD1	PHE D 354	32.730	111.953	91.602	1.00	24.85	C
ATOM	13536	CE1	PHE D 354	31.932	113.101	91.485	1.00	24.80	C
ATOM	13538	CZ	PHE D 354	32.136	114.180	92.333	1.00	24.01	C
ATOM	13540	CE2	PHE D 354	33.125	114.121	93.288	1.00	23.68	C
ATOM	13542	CD2	PHE D 354	33.917	112.980	93.406	1.00	23.84	C
ATOM	13544	C	PHE D 354	36.833	109.703	91.888	1.00	22.27	C
ATOM	13545	O	PHE D 354	37.853	110.367	92.105	1.00	21.82	O
ATOM	13546	N	GLU D 355	36.804	108.368	91.947	1.00	22.53	N
ATOM	13548	CA	GLU D 355	38.011	107.565	92.166	1.00	22.94	C
ATOM	13550	CB	GLU D 355	37.672	106.059	92.216	1.00	23.60	C
ATOM	13553	CG	GLU D 355	38.786	105.055	91.844	1.00	26.19	C
ATOM	13556	CD	GLU D 355	38.343	103.571	91.983	1.00	29.80	C
ATOM	13557	OE1	GLU D 355	38.313	102.821	90.953	1.00	30.45	O
ATOM	13558	OE2	GLU D 355	38.031	103.146	93.128	1.00	28.86	O
ATOM	13559	C	GLU D 355	39.017	107.881	91.069	1.00	22.55	C
ATOM	13560	O	GLU D 355	40.192	108.075	91.341	1.00	22.51	O
ATOM	13561	N	PHE D 356	38.547	107.962	89.831	1.00	22.09	N
ATOM	13563	CA	PHE D 356	39.425	108.252	88.714	1.00	21.85	C
ATOM	13565	CB	PHE D 356	38.644	108.236	87.389	1.00	21.68	C
ATOM	13568	CG	PHE D 356	39.479	108.563	86.161	1.00	20.25	C
ATOM	13569	CD1	PHE D 356	40.379	107.643	85.647	1.00	19.48	C
ATOM	13571	CE1	PHE D 356	41.125	107.925	84.516	1.00	20.32	C
ATOM	13573	CZ	PHE D 356	40.976	109.155	83.857	1.00	20.78	C
ATOM	13575	CE2	PHE D 356	40.078	110.083	84.353	1.00	20.72	C
ATOM	13577	CD2	PHE D 356	39.326	109.775	85.506	1.00	20.37	C
ATOM	13579	C	PHE D 356	40.068	109.613	88.932	1.00	22.21	C
ATOM	13580	O	PHE D 356	41.273	109.776	88.746	1.00	22.62	O
ATOM	13581	N	SER D 357	39.260	110.581	89.338	1.00	22.26	N
ATOM	13583	CA	SER D 357	39.698	111.965	89.441	1.00	22.46	C
ATOM	13585	CB	SER D 357	38.499	112.854	89.725	1.00	22.55	C
ATOM	13588	OG	SER D 357	37.497	112.608	88.748	1.00	23.09	O
ATOM	13590	C	SER D 357	40.719	112.123	90.540	1.00	22.77	C

337

ATOM 13591	O	SER D 357	41.752	112.749	90.336	1.00	22.80	O
ATOM 13592	N	ARG D 358	40.406	111.562	91.705	1.00	23.22	N
ATOM 13594	CA	ARG D 358	41.341	111.441	92.822	1.00	23.69	C
ATOM 13596	CB	ARG D 358	40.737	110.539	93.895	1.00	23.84	C
ATOM 13599	CG	ARG D 358	39.950	111.209	94.976	1.00	24.37	C
ATOM 13602	CD	ARG D 358	39.736	110.306	96.194	1.00	26.14	C
ATOM 13605	NE	ARG D 358	39.529	108.888	95.840	1.00	28.42	N
ATOM 13607	CZ	ARG D 358	38.343	108.249	95.780	1.00	29.21	C
ATOM 13608	NH1	ARG D 358	37.197	108.883	96.034	1.00	29.97	N
ATOM 13611	NH2	ARG D 358	38.300	106.958	95.450	1.00	27.86	N
ATOM 13614	C	ARG D 358	42.691	110.830	92.426	1.00	23.99	C
ATOM 13615	O	ARG D 358	43.751	111.291	92.843	1.00	24.03	O
ATOM 13616	N	ALA D 359	42.646	109.761	91.657	1.00	24.70	N
ATOM 13618	CA	ALA D 359	43.859	109.060	91.284	1.00	25.97	C
ATOM 13620	CB	ALA D 359	43.518	107.709	90.658	1.00	26.12	C
ATOM 13624	C	ALA D 359	44.698	109.895	90.320	1.00	26.89	C
ATOM 13625	O	ALA D 359	45.927	109.899	90.386	1.00	27.13	O
ATOM 13626	N	MET D 360	44.015	110.595	89.422	1.00	27.85	N
ATOM 13628	CA	MET D 360	44.656	111.460	88.446	1.00	28.56	C
ATOM 13630	CB	MET D 360	43.597	112.080	87.546	1.00	28.45	C
ATOM 13633	CG	MET D 360	44.056	112.313	86.120	1.00	30.11	C
ATOM 13636	SD	MET D 360	44.377	110.883	85.113	1.00	28.53	S
ATOM 13637	CE	MET D 360	43.314	109.810	85.823	1.00	34.13	C
ATOM 13641	C	MET D 360	45.417	112.569	89.155	1.00	29.08	C
ATOM 13642	O	MET D 360	46.510	112.954	88.745	1.00	29.36	O
ATOM 13643	N	ARG D 361	44.824	113.076	90.227	1.00	29.70	N
ATOM 13645	CA	ARG D 361	45.424	114.136	91.017	1.00	30.30	C
ATOM 13647	CB	ARG D 361	44.445	114.577	92.114	1.00	31.01	C
ATOM 13650	CG	ARG D 361	44.491	116.079	92.461	1.00	33.71	C
ATOM 13653	CD	ARG D 361	44.105	117.057	91.292	1.00	36.07	C
ATOM 13656	NE	ARG D 361	44.559	118.427	91.594	1.00	38.11	N
ATOM 13658	CZ	ARG D 361	44.012	119.551	91.130	1.00	39.33	C
ATOM 13659	NH1	ARG D 361	42.974	119.521	90.303	1.00	40.49	N
ATOM 13662	NH2	ARG D 361	44.517	120.725	91.492	1.00	39.98	N
ATOM 13665	C	ARG D 361	46.770	113.722	91.626	1.00	29.88	C
ATOM 13666	O	ARG D 361	47.661	114.546	91.763	1.00	30.15	O
ATOM 13667	N	ARG D 362	46.909	112.446	91.985	1.00	29.65	N
ATOM 13669	CA	ARG D 362	48.170	111.878	92.511	1.00	29.18	C
ATOM 13671	CB	ARG D 362	47.904	110.507	93.169	1.00	29.35	C
ATOM 13674	CG	ARG D 362	47.317	110.584	94.575	1.00	30.19	C
ATOM 13677	CD	ARG D 362	47.282	109.249	95.323	1.00	31.60	C
ATOM 13680	NE	ARG D 362	45.948	108.648	95.253	1.00	32.65	N
ATOM 13682	CZ	ARG D 362	45.557	107.717	94.377	1.00	33.54	C
ATOM 13683	NH1	ARG D 362	46.392	107.224	93.461	1.00	34.22	N
ATOM 13686	NH2	ARG D 362	44.307	107.271	94.412	1.00	33.57	N
ATOM 13689	C	ARG D 362	49.276	111.729	91.447	1.00	28.41	C
ATOM 13690	O	ARG D 362	50.456	111.699	91.775	1.00	28.03	O
ATOM 13691	N	LEU D 363	48.886	111.593	90.181	1.00	27.94	N

338

ATOM 13693	CA LEU D 363	49.840	111.656	89.066	1.00	27.63	C
ATOM 13695	CB LEU D 363	49.227	111.128	87.757	1.00	27.65	C
ATOM 13698	CG LEU D 363	49.419	109.647	87.420	1.00	29.01	C
ATOM 13700	CD1 LEU D 363	48.824	109.324	86.037	1.00	29.75	C
ATOM 13704	CD2 LEU D 363	50.874	109.230	87.468	1.00	29.68	C
ATOM 13708	C LEU D 363	50.337	113.091	88.854	1.00	26.67	C
ATOM 13709	O LEU D 363	51.453	113.292	88.377	1.00	26.33	O
ATOM 13710	N GLY D 364	49.497	114.069	89.200	1.00	25.70	N
ATOM 13712	CA GLY D 364	49.838	115.471	89.097	1.00	25.00	C
ATOM 13715	C GLY D 364	50.272	115.827	87.698	1.00	24.46	C
ATOM 13716	O GLY D 364	51.367	116.319	87.512	1.00	24.19	O
ATOM 13717	N LEU D 365	49.429	115.554	86.707	1.00	23.82	N
ATOM 13719	CA LEU D 365	49.751	115.950	85.340	1.00	23.63	C
ATOM 13721	CB LEU D 365	48.755	115.348	84.333	1.00	23.97	C
ATOM 13724	CG LEU D 365	48.642	113.823	84.122	1.00	25.37	C
ATOM 13726	CD1 LEU D 365	48.105	113.520	82.731	1.00	26.39	C
ATOM 13730	CD2 LEU D 365	49.932	113.110	84.331	1.00	25.72	C
ATOM 13734	C LEU D 365	49.780	117.485	85.176	1.00	22.74	C
ATOM 13735	O LEU D 365	49.017	118.206	85.825	1.00	22.40	O
ATOM 13736	N ASP D 366	50.666	117.964	84.303	1.00	21.78	N
ATOM 13738	CA ASP D 366	50.739	119.384	83.959	1.00	21.15	C
ATOM 13740	CB ASP D 366	52.192	119.895	83.946	1.00	20.82	C
ATOM 13743	CG ASP D 366	53.069	119.161	82.977	1.00	19.90	C
ATOM 13744	OD1 ASP D 366	52.536	118.498	82.080	1.00	19.99	O
ATOM 13745	OD2 ASP D 366	54.311	119.183	83.027	1.00	19.11	O
ATOM 13746	C ASP D 366	50.023	119.609	82.631	1.00	20.87	C
ATOM 13747	O ASP D 366	49.387	118.696	82.105	1.00	20.68	O
ATOM 13748	N ASP D 367	50.093	120.826	82.104	1.00	20.37	N
ATOM 13750	CA ASP D 367	49.335	121.161	80.906	1.00	20.07	C
ATOM 13752	CB ASP D 367	49.370	122.668	80.651	1.00	20.06	C
ATOM 13755	CG ASP D 367	48.587	123.480	81.707	1.00	20.54	C
ATOM 13756	OD1 ASP D 367	47.757	122.922	82.449	1.00	19.80	O
ATOM 13757	OD2 ASP D 367	48.735	124.711	81.855	1.00	22.21	O
ATOM 13758	C ASP D 367	49.815	120.367	79.677	1.00	19.79	C
ATOM 13759	O ASP D 367	49.009	119.853	78.898	1.00	20.20	O
ATOM 13760	N ALA D 368	51.119	120.243	79.521	1.00	19.10	N
ATOM 13762	CA ALA D 368	51.675	119.515	78.404	1.00	18.97	C
ATOM 13764	CB ALA D 368	53.174	119.610	78.454	1.00	19.22	C
ATOM 13768	C ALA D 368	51.244	118.041	78.420	1.00	19.05	C
ATOM 13769	O ALA D 368	50.894	117.458	77.382	1.00	19.42	O
ATOM 13770	N GLU D 369	51.263	117.453	79.613	1.00	18.57	N
ATOM 13772	CA GLU D 369	51.017	116.038	79.791	1.00	17.67	C
ATOM 13774	CB GLU D 369	51.444	115.590	81.187	1.00	17.57	C
ATOM 13777	CG GLU D 369	52.954	115.386	81.330	1.00	16.91	C
ATOM 13780	CD GLU D 369	53.435	115.301	82.779	1.00	15.04	C
ATOM 13781	OE1 GLU D 369	54.568	114.842	83.036	1.00	13.47	O
ATOM 13782	OE2 GLU D 369	52.686	115.681	83.685	1.00	15.20	O
ATOM 13783	C GLU D 369	49.558	115.761	79.556	1.00	17.63	C

339

ATOM 13784	O	GLU D 369	49.219	114.772	78.920	1.00	18.08	O
ATOM 13785	N	TYR D 370	48.676	116.628	80.025	1.00	17.66	N
ATOM 13787	CA	TYR D 370	47.261	116.383	79.794	1.00	18.30	C
ATOM 13789	CB	TYR D 370	46.381	117.376	80.517	1.00	18.67	C
ATOM 13792	CG	TYR D 370	45.808	116.849	81.801	1.00	21.05	C
ATOM 13793	CD1	TYR D 370	46.142	117.446	83.028	1.00	23.25	C
ATOM 13795	CE1	TYR D 370	45.627	116.986	84.221	1.00	23.37	C
ATOM 13797	CZ	TYR D 370	44.768	115.914	84.229	1.00	23.91	C
ATOM 13798	OH	TYR D 370	44.274	115.482	85.440	1.00	23.59	O
ATOM 13800	CE2	TYR D 370	44.409	115.300	83.028	1.00	24.96	C
ATOM 13802	CD2	TYR D 370	44.934	115.783	81.808	1.00	22.06	C
ATOM 13804	C	TYR D 370	46.953	116.460	78.319	1.00	18.19	C
ATOM 13805	O	TYR D 370	46.259	115.603	77.791	1.00	17.82	O
ATOM 13806	N	ALA D 371	47.491	117.493	77.668	1.00	18.69	N
ATOM 13808	CA	ALA D 371	47.179	117.801	76.272	1.00	18.52	C
ATOM 13810	CB	ALA D 371	47.795	119.140	75.852	1.00	18.43	C
ATOM 13814	C	ALA D 371	47.661	116.674	75.390	1.00	18.35	C
ATOM 13815	O	ALA D 371	46.945	116.232	74.487	1.00	18.18	O
ATOM 13816	N	LEU D 372	48.847	116.170	75.693	1.00	18.25	N
ATOM 13818	CA	LEU D 372	49.373	115.028	74.964	1.00	18.98	C
ATOM 13820	CB	LEU D 372	50.807	114.739	75.415	1.00	18.86	C
ATOM 13823	CG	LEU D 372	51.815	115.736	74.853	1.00	18.92	C
ATOM 13825	CD1	LEU D 372	53.181	115.643	75.548	1.00	18.38	C
ATOM 13829	CD2	LEU D 372	51.934	115.533	73.353	1.00	19.42	C
ATOM 13833	C	LEU D 372	48.503	113.760	75.099	1.00	19.72	C
ATOM 13834	O	LEU D 372	48.331	113.008	74.154	1.00	19.43	O
ATOM 13835	N	LEU D 373	47.971	113.530	76.292	1.00	20.97	N
ATOM 13837	CA	LEU D 373	47.180	112.329	76.574	1.00	21.51	C
ATOM 13839	CB	LEU D 373	46.819	112.225	78.068	1.00	22.02	C
ATOM 13842	CG	LEU D 373	47.579	111.219	78.927	1.00	23.19	C
ATOM 13844	CD1	LEU D 373	46.906	111.138	80.293	1.00	24.13	C
ATOM 13848	CD2	LEU D 373	47.641	109.871	78.243	1.00	23.08	C
ATOM 13852	C	LEU D 373	45.909	112.368	75.786	1.00	21.12	C
ATOM 13853	O	LEU D 373	45.394	111.332	75.360	1.00	20.97	O
ATOM 13854	N	ILE D 374	45.382	113.560	75.605	1.00	20.62	N
ATOM 13856	CA	ILE D 374	44.163	113.654	74.868	1.00	21.18	C
ATOM 13858	CB	ILE D 374	43.565	115.011	74.986	1.00	21.45	C
ATOM 13860	CG1	ILE D 374	43.228	115.327	76.456	1.00	22.09	C
ATOM 13863	CD1	ILE D 374	43.129	116.846	76.721	1.00	20.83	C
ATOM 13867	CG2	ILE D 374	42.339	115.092	74.048	1.00	21.96	C
ATOM 13871	C	ILE D 374	44.441	113.354	73.397	1.00	21.37	C
ATOM 13872	O	ILE D 374	43.705	112.601	72.765	1.00	21.71	O
ATOM 13873	N	ALA D 375	45.496	113.944	72.845	1.00	20.92	N
ATOM 13875	CA	ALA D 375	45.829	113.693	71.456	1.00	20.37	C
ATOM 13877	CB	ALA D 375	47.084	114.443	71.089	1.00	20.56	C
ATOM 13881	C	ALA D 375	46.012	112.193	71.261	1.00	20.11	C
ATOM 13882	O	ALA D 375	45.441	111.611	70.362	1.00	19.98	O
ATOM 13883	N	ILE D 376	46.787	111.582	72.152	1.00	20.02	N

340

ATOM 13885	CA ILE D 376	47.047	110.161	72.141	1.00	19.93	C
ATOM 13887	CB ILE D 376	47.960	109.772	73.318	1.00	19.91	C
ATOM 13889	CG1 ILE D 376	49.370	110.321	73.087	1.00	19.82	C
ATOM 13892	CD1 ILE D 376	50.422	109.953	74.173	1.00	20.60	C
ATOM 13896	CG2 ILE D 376	48.013	108.222	73.502	1.00	20.45	C
ATOM 13900	C ILE D 376	45.743	109.383	72.172	1.00	20.24	C
ATOM 13901	O ILE D 376	45.592	108.383	71.460	1.00	20.69	O
ATOM 13902	N ASN D 377	44.806	109.843	72.988	1.00	20.20	N
ATOM 13904	CA ASN D 377	43.544	109.144	73.193	1.00	20.29	C
ATOM 13906	CB ASN D 377	42.818	109.737	74.438	1.00	20.78	C
ATOM 13909	CG ASN D 377	41.464	109.059	74.742	1.00	20.97	C
ATOM 13910	OD1 ASN D 377	40.473	109.329	74.066	1.00	23.08	O
ATOM 13911	ND2 ASN D 377	41.420	108.218	75.769	1.00	16.97	N
ATOM 13914	C ASN D 377	42.690	109.230	71.919	1.00	19.95	C
ATOM 13915	O ASN D 377	41.993	108.278	71.560	1.00	20.27	O
ATOM 13916	N ILE D 378	42.738	110.377	71.250	1.00	19.26	N
ATOM 13918	CA ILE D 378	41.968	110.599	70.030	1.00	18.75	C
ATOM 13920	CB ILE D 378	42.153	112.060	69.508	1.00	18.77	C
ATOM 13922	CG1 ILE D 378	41.342	113.031	70.375	1.00	19.09	C
ATOM 13925	CD1 ILE D 378	41.781	114.472	70.341	1.00	18.79	C
ATOM 13929	CG2 ILE D 378	41.724	112.187	68.044	1.00	18.91	C
ATOM 13933	C ILE D 378	42.382	109.578	68.981	1.00	18.32	C
ATOM 13934	O ILE D 378	41.519	108.926	68.376	1.00	16.91	O
ATOM 13935	N PHE D 379	43.701	109.422	68.823	1.00	18.34	N
ATOM 13937	CA PHE D 379	44.297	108.552	67.805	1.00	18.78	C
ATOM 13939	CB PHE D 379	45.643	109.133	67.324	1.00	18.61	C
ATOM 13942	CG PHE D 379	45.493	110.415	66.539	1.00	17.77	C
ATOM 13943	CD1 PHE D 379	46.182	111.562	66.910	1.00	15.28	C
ATOM 13945	CE1 PHE D 379	46.000	112.731	66.255	1.00	14.16	C
ATOM 13947	CZ PHE D 379	45.157	112.796	65.182	1.00	15.49	C
ATOM 13949	CE2 PHE D 379	44.465	111.679	64.785	1.00	16.73	C
ATOM 13951	CD2 PHE D 379	44.623	110.486	65.473	1.00	16.28	C
ATOM 13953	C PHE D 379	44.444	107.085	68.237	1.00	19.48	C
ATOM 13954	O PHE D 379	45.507	106.467	68.067	1.00	18.89	O
ATOM 13955	N SER D 380	43.355	106.536	68.773	1.00	20.73	N
ATOM 13957	CA SER D 380	43.291	105.140	69.175	1.00	22.12	C
ATOM 13959	CB SER D 380	42.420	104.992	70.402	1.00	22.33	C
ATOM 13962	OG SER D 380	42.986	105.676	71.489	1.00	23.06	O
ATOM 13964	C SER D 380	42.691	104.347	68.029	1.00	23.01	C
ATOM 13965	O SER D 380	41.533	104.555	67.626	1.00	22.89	O
ATOM 13966	N ALA D 381	43.486	103.446	67.487	1.00	23.95	N
ATOM 13968	CA ALA D 381	43.197	102.911	66.170	1.00	24.86	C
ATOM 13970	CB ALA D 381	44.492	102.384	65.538	1.00	24.88	C
ATOM 13974	C ALA D 381	42.115	101.817	66.268	1.00	25.60	C
ATOM 13975	O ALA D 381	41.365	101.554	65.296	1.00	26.24	O
ATOM 13976	N ASP D 382	42.017	101.233	67.467	1.00	25.73	N
ATOM 13978	CA ASP D 382	41.087	100.138	67.785	1.00	25.68	C
ATOM 13980	CB ASP D 382	41.688	99.351	68.929	1.00	25.77	C

341

ATOM 13983	CG ASP D 382	41.538	100.071	70.217	1.00	26.58	C
ATOM 13984	OD1 ASP D 382	41.974	101.227	70.325	1.00	24.92	O
ATOM 13985	OD2 ASP D 382	40.909	99.570	71.157	1.00	33.53	O
ATOM 13986	C ASP D 382	39.670	100.569	68.217	1.00	25.05	C
ATOM 13987	O ASP D 382	38.994	99.837	68.939	1.00	25.29	O
ATOM 13988	N ARG D 383	39.223	101.749	67.802	1.00	24.36	N
ATOM 13990	CA ARG D 383	37.887	102.194	68.138	1.00	23.67	C
ATOM 13992	CB ARG D 383	37.723	103.687	67.917	1.00	23.35	C
ATOM 13995	CG ARG D 383	38.606	104.525	68.764	1.00	22.04	C
ATOM 13998	CD ARG D 383	38.377	104.330	70.242	1.00	21.22	C
ATOM 14001	NE ARG D 383	38.854	105.473	71.003	1.00	21.38	N
ATOM 14003	CZ ARG D 383	38.749	105.602	72.320	1.00	20.71	C
ATOM 14004	NH1 ARG D 383	38.177	104.654	73.044	1.00	18.63	N
ATOM 14007	NH2 ARG D 383	39.223	106.704	72.902	1.00	21.51	N
ATOM 14010	C ARG D 383	36.953	101.493	67.211	1.00	23.94	C
ATOM 14011	O ARG D 383	37.333	101.137	66.107	1.00	23.91	O
ATOM 14012	N PRO D 384	35.707	101.357	67.614	1.00	24.37	N
ATOM 14013	CA PRO D 384	34.717	100.764	66.727	1.00	24.50	C
ATOM 14015	CB PRO D 384	33.404	100.906	67.508	1.00	24.50	C
ATOM 14018	CG PRO D 384	33.796	101.100	68.909	1.00	24.66	C
ATOM 14021	CD PRO D 384	35.114	101.802	68.887	1.00	24.73	C
ATOM 14024	C PRO D 384	34.655	101.576	65.443	1.00	24.46	C
ATOM 14025	O PRO D 384	34.892	102.789	65.477	1.00	24.80	O
ATOM 14026	N ASN D 385	34.364	100.895	64.336	1.00	24.41	N
ATOM 14028	CA ASN D 385	33.988	101.519	63.048	1.00	24.06	C
ATOM 14030	CB ASN D 385	32.684	102.335	63.209	1.00	24.13	C
ATOM 14033	CG ASN D 385	31.483	101.442	63.519	1.00	24.57	C
ATOM 14034	OD1 ASN D 385	31.241	100.474	62.811	1.00	25.47	O
ATOM 14035	ND2 ASN D 385	30.748	101.753	64.583	1.00	24.61	N
ATOM 14038	C ASN D 385	35.081	102.312	62.327	1.00	23.13	C
ATOM 14039	O ASN D 385	34.794	103.058	61.413	1.00	23.40	O
ATOM 14040	N VAL D 386	36.333	102.115	62.711	1.00	22.23	N
ATOM 14042	CA VAL D 386	37.432	102.819	62.085	1.00	21.64	C
ATOM 14044	CB VAL D 386	38.597	102.868	63.009	1.00	21.89	C
ATOM 14046	CG1 VAL D 386	39.801	103.489	62.308	1.00	23.24	C
ATOM 14050	CG2 VAL D 386	38.236	103.653	64.260	1.00	22.08	C
ATOM 14054	C VAL D 386	37.885	102.117	60.822	1.00	21.29	C
ATOM 14055	O VAL D 386	38.262	100.962	60.871	1.00	20.91	O
ATOM 14056	N GLND 387	37.870	102.840	59.706	1.00	21.17	N
ATOM 14058	CA GLND 387	38.274	102.337	58.382	1.00	21.11	C
ATOM 14060	CB GLND 387	37.755	103.298	57.316	1.00	21.60	C
ATOM 14063	CG GLND 387	36.228	103.474	57.271	1.00	23.84	C
ATOM 14066	CD GLND 387	35.442	102.152	57.315	1.00	26.84	C
ATOM 14067	OE1 GLND 387	35.231	101.587	58.402	1.00	29.70	O
ATOM 14068	NE2 GLND 387	34.983	101.681	56.151	1.00	26.87	N
ATOM 14071	C GLND 387	39.790	102.150	58.138	1.00	20.46	C
ATOM 14072	O GLND 387	40.206	101.134	57.551	1.00	20.17	O
ATOM 14073	N GLU D 388	40.598	103.122	58.578	1.00	19.57	N

342

ATOM	14075	CA	GLU D 388	42.057	103.106	58.374	1.00	19.19	C
ATOM	14077	CB	GLU D 388	42.469	104.335	57.573	1.00	19.45	C
ATOM	14080	CG	GLU D 388	41.610	104.524	56.323	1.00	21.28	C
ATOM	14083	CD	GLU D 388	42.299	105.317	55.207	1.00	22.49	C
ATOM	14084	OE1	GLU D 388	42.265	106.564	55.252	1.00	22.05	O
ATOM	14085	OE2	GLU D 388	42.874	104.695	54.281	1.00	23.94	O
ATOM	14086	C	GLU D 388	42.840	103.030	59.684	1.00	18.12	C
ATOM	14087	O	GLU D 388	43.472	103.984	60.101	1.00	18.05	O
ATOM	14088	N	PRO D 389	42.800	101.896	60.357	1.00	17.29	N
ATOM	14089	CA	PRO D 389	43.466	101.816	61.649	1.00	16.81	C
ATOM	14091	CB	PRO D 389	43.156	100.416	62.141	1.00	17.09	C
ATOM	14094	CG	PRO D 389	42.733	99.631	60.902	1.00	17.43	C
ATOM	14097	CD	PRO D 389	42.123	100.640	59.984	1.00	17.25	C
ATOM	14100	C	PRO D 389	44.924	102.000	61.470	1.00	16.76	C
ATOM	14101	O	PRO D 389	45.491	102.671	62.276	1.00	17.36	O
ATOM	14102	N	GLY D 390	45.517	101.430	60.435	1.00	16.78	N
ATOM	14104	CA	GLY D 390	46.900	101.702	60.098	1.00	16.85	C
ATOM	14107	C	GLY D 390	47.293	103.169	60.158	1.00	17.28	C
ATOM	14108	O	GLY D 390	48.261	103.524	60.809	1.00	17.15	O
ATOM	14109	N	ARG D 391	46.527	104.017	59.489	1.00	18.14	N
ATOM	14111	CA	ARG D 391	46.796	105.440	59.439	1.00	19.06	C
ATOM	14113	CB	ARG D 391	45.861	106.150	58.473	1.00	19.79	C
ATOM	14116	CG	ARG D 391	46.235	105.856	57.027	1.00	24.81	C
ATOM	14119	CD	ARG D 391	45.343	106.479	55.937	1.00	31.08	C
ATOM	14122	NE	ARG D 391	44.909	107.848	56.239	1.00	35.63	N
ATOM	14124	CZ	ARG D 391	45.682	108.922	56.164	1.00	39.19	C
ATOM	14125	NH1	ARG D 391	46.950	108.832	55.783	1.00	41.56	N
ATOM	14128	NH2	ARG D 391	45.182	110.100	56.481	1.00	39.96	N
ATOM	14131	C	ARG D 391	46.624	106.037	60.774	1.00	18.88	C
ATOM	14132	O	ARG D 391	47.399	106.881	61.144	1.00	18.53	O
ATOM	14133	N	VAL D 392	45.605	105.609	61.511	1.00	19.28	N
ATOM	14135	CA	VAL D 392	45.350	106.198	62.827	1.00	19.65	C
ATOM	14137	CB	VAL D 392	43.978	105.775	63.400	1.00	19.47	C
ATOM	14139	CG1	VAL D 392	43.740	106.387	64.752	1.00	18.81	C
ATOM	14143	CG2	VAL D 392	42.846	106.211	62.462	1.00	19.77	C
ATOM	14147	C	VAL D 392	46.523	105.888	63.790	1.00	20.35	C
ATOM	14148	O	VAL D 392	47.021	106.782	64.482	1.00	20.30	O
ATOM	14149	N	GLU D 393	46.988	104.639	63.776	1.00	21.00	N
ATOM	14151	CA	GLU D 393	48.068	104.174	64.638	1.00	21.57	C
ATOM	14153	CB	GLU D 393	48.298	102.681	64.426	1.00	22.36	C
ATOM	14156	CG	GLU D 393	49.419	102.065	65.247	1.00	25.56	C
ATOM	14159	CD	GLU D 393	49.519	100.549	65.063	1.00	29.06	C
ATOM	14160	OE1	GLU D 393	49.371	99.839	66.065	1.00	31.45	O
ATOM	14161	OE2	GLU D 393	49.750	100.055	63.927	1.00	32.11	O
ATOM	14162	C	GLU D 393	49.333	104.933	64.350	1.00	21.24	C
ATOM	14163	O	GLU D 393	50.125	105.144	65.266	1.00	20.96	O
ATOM	14164	N	ALA D 394	49.507	105.371	63.089	1.00	21.14	N
ATOM	14166	CA	ALA D 394	50.725	106.095	62.661	1.00	20.32	C

ATOM 14168	CB ALA D 394	50.885	106.078	61.201	1.00	19.69	C
ATOM 14172	C ALA D 394	50.694	107.510	63.153	1.00	20.38	C
ATOM 14173	O ALA D 394	51.729	108.057	63.510	1.00	20.59	O
ATOM 14174	N LEU D 395	49.505	108.098	63.196	1.00	20.47	N
ATOM 14176	CA LEU D 395	49.336	109.420	63.790	1.00	20.77	C
ATOM 14178	CB LEU D 395	47.928	109.938	63.560	1.00	20.81	C
ATOM 14181	CG LEU D 395	47.649	110.100	62.087	1.00	22.26	C
ATOM 14183	CD1 LEU D 395	46.175	110.293	61.869	1.00	23.63	C
ATOM 14187	CD2 LEU D 395	48.419	111.258	61.546	1.00	24.74	C
ATOM 14191	C LEU D 395	49.597	109.397	65.302	1.00	20.59	C
ATOM 14192	O LEU D 395	50.116	110.375	65.858	1.00	20.26	O
ATOM 14193	N GLN D 396	49.251	108.293	65.960	1.00	19.73	N
ATOM 14195	CA GLN D 396	49.356	108.260	67.403	1.00	20.05	C
ATOM 14197	CB GLN D 396	48.667	107.012	68.017	1.00	20.37	C
ATOM 14200	CG GLN D 396	48.454	107.124	69.537	1.00	20.06	C
ATOM 14203	CD GLN D 396	47.979	105.861	70.193	1.00	20.29	C
ATOM 14204	OE1 GLN D 396	46.858	105.815	70.696	1.00	20.80	O
ATOM 14205	NE2 GLN D 396	48.835	104.857	70.247	1.00	19.12	N
ATOM 14208	C GLN D 396	50.806	108.305	67.826	1.00	19.83	C
ATOM 14209	O GLN D 396	51.114	108.806	68.894	1.00	19.67	O
ATOM 14210	N GLN D 397	51.685	107.784	66.981	1.00	19.67	N
ATOM 14212	CA GLN D 397	53.069	107.597	67.358	1.00	19.66	C
ATOM 14214	CB GLN D 397	53.829	106.839	66.275	1.00	19.92	C
ATOM 14217	CG GLN D 397	55.225	106.447	66.705	1.00	22.13	C
ATOM 14220	CD GLN D 397	56.027	105.832	65.573	1.00	24.57	C
ATOM 14221	OE1 GLN D 397	55.676	104.737	65.095	1.00	27.99	O
ATOM 14222	NE2 GLN D 397	57.090	106.521	65.130	1.00	22.32	N
ATOM 14225	C GLN D 397	53.790	108.884	67.776	1.00	18.93	C
ATOM 14226	O GLN D 397	54.280	108.948	68.882	1.00	18.95	O
ATOM 14227	N PRO D 398	53.881	109.911	66.940	1.00	18.52	N
ATOM 14228	CA PRO D 398	54.614	111.125	67.343	1.00	18.04	C
ATOM 14230	CB PRO D 398	54.289	112.146	66.236	1.00	17.79	C
ATOM 14233	CG PRO D 398	53.418	111.502	65.290	1.00	18.23	C
ATOM 14236	CD PRO D 398	53.354	110.017	65.574	1.00	18.57	C
ATOM 14239	C PRO D 398	54.204	111.678	68.711	1.00	17.72	C
ATOM 14240	O PRO D 398	55.055	112.182	69.418	1.00	17.84	O
ATOM 14241	N TYR D 399	52.927	111.601	69.065	1.00	17.81	N
ATOM 14243	CA TYR D 399	52.430	112.085	70.360	1.00	17.76	C
ATOM 14245	CB TYR D 399	50.904	112.210	70.347	1.00	17.88	C
ATOM 14248	CG TYR D 399	50.423	113.203	69.330	1.00	18.22	C
ATOM 14249	CD1 TYR D 399	49.900	112.788	68.120	1.00	18.17	C
ATOM 14251	CE1 TYR D 399	49.476	113.688	67.186	1.00	17.27	C
ATOM 14253	CZ TYR D 399	49.572	115.031	67.443	1.00	18.04	C
ATOM 14254	OH TYR D 399	49.155	115.953	66.493	1.00	17.86	O
ATOM 14256	CE2 TYR D 399	50.086	115.469	68.641	1.00	17.94	C
ATOM 14258	CD2 TYR D 399	50.516	114.560	69.566	1.00	18.61	C
ATOM 14260	C TYR D 399	52.870	111.231	71.536	1.00	17.45	C
ATOM 14261	O TYR D 399	53.166	111.781	72.563	1.00	17.11	O

344

ATOM 14262 N VAL D 400	52.889	109.903	71.383	1.00	17.74	N
ATOM 14264 CA VAL D 400	53.475	108.999	72.372	1.00	18.33	C
ATOM 14266 CB VAL D 400	53.382	107.504	71.998	1.00	18.16	C
ATOM 14268 CG1 VAL D 400	54.016	106.663	73.066	1.00	18.08	C
ATOM 14272 CG2 VAL D 400	51.950	107.048	71.791	1.00	18.79	C
ATOM 14276 C VAL D 400	54.954	109.321	72.540	1.00	19.34	C
ATOM 14277 O VAL D 400	55.375	109.541	73.667	1.00	20.53	O
ATOM 14278 N GLU D 401	55.748	109.327	71.456	1.00	19.54	N
ATOM 14280 CA GLU D 401	57.165	109.730	71.513	1.00	20.05	C
ATOM 14282 CB GLU D 401	57.768	109.846	70.103	1.00	20.71	C
ATOM 14285 CG GLU D 401	58.174	108.538	69.449	1.00	23.83	C
ATOM 14288 CD GLU D 401	58.507	108.676	67.962	1.00	27.86	C
ATOM 14289 OE1 GLU D 401	58.158	107.761	67.168	1.00	29.33	O
ATOM 14290 OE2 GLU D 401	59.124	109.693	67.572	1.00	30.78	O
ATOM 14291 C GLU D 401	57.386	111.067	72.235	1.00	19.70	C
ATOM 14292 O GLU D 401	58.376	111.258	72.944	1.00	19.28	O
ATOM 14293 N ALA D 402	56.466	111.996	72.026	1.00	19.60	N
ATOM 14295 CA ALA D 402	56.605	113.336	72.554	1.00	19.82	C
ATOM 14297 CB ALA D 402	55.639	114.281	71.874	1.00	19.93	C
ATOM 14301 C ALA D 402	56.366	113.321	74.046	1.00	19.90	C
ATOM 14302 O ALA D 402	57.041	114.027	74.790	1.00	19.68	O
ATOM 14303 N LEU D 403	55.397	112.516	74.486	1.00	20.33	N
ATOM 14305 CA LEU D 403	55.117	112.341	75.932	1.00	20.21	C
ATOM 14307 CB LEU D 403	53.797	111.622	76.156	1.00	19.89	C
ATOM 14310 CG LEU D 403	53.272	111.494	77.583	1.00	19.78	C
ATOM 14312 CD1 LEU D 403	53.147	112.824	78.312	1.00	19.37	C
ATOM 14316 CD2 LEU D 403	51.928	110.778	77.535	1.00	20.17	C
ATOM 14320 C LEU D 403	56.250	111.598	76.628	1.00	20.40	C
ATOM 14321 O LEU D 403	56.647	111.944	77.744	1.00	19.78	O
ATOM 14322 N LEU D 404	56.787	110.599	75.940	1.00	20.87	N
ATOM 14324 CA LEU D 404	57.922	109.874	76.446	1.00	21.50	C
ATOM 14326 CB LEU D 404	58.307	108.735	75.505	1.00	22.00	C
ATOM 14329 CG LEU D 404	59.590	107.976	75.858	1.00	23.85	C
ATOM 14331 CD1 LEU D 404	59.647	107.648	77.336	1.00	24.72	C
ATOM 14335 CD2 LEU D 404	59.686	106.722	75.012	1.00	25.57	C
ATOM 14339 C LEU D 404	59.065	110.849	76.629	1.00	21.29	C
ATOM 14340 O LEU D 404	59.571	110.981	77.735	1.00	21.48	O
ATOM 14341 N SER D 405	59.467	111.540	75.562	1.00	21.06	N
ATOM 14343 CA SER D 405	60.562	112.515	75.675	1.00	20.85	C
ATOM 14345 CB SER D 405	60.822	113.286	74.361	1.00	20.96	C
ATOM 14348 OG SER D 405	60.975	112.427	73.240	1.00	21.81	O
ATOM 14350 C SER D 405	60.244	113.517	76.784	1.00	20.13	C
ATOM 14351 O SER D 405	61.091	113.797	77.621	1.00	19.94	O
ATOM 14352 N TYR D 406	59.011	114.024	76.798	1.00	19.43	N
ATOM 14354 CA TYR D 406	58.646	115.094	77.702	1.00	18.84	C
ATOM 14356 CB TYR D 406	57.238	115.627	77.432	1.00	18.39	C
ATOM 14359 CG TYR D 406	56.862	116.741	78.386	1.00	17.05	C
ATOM 14360 CD1 TYR D 406	57.171	118.076	78.109	1.00	15.16	C

345

ATOM 14362	CE1 TYR D 406	56.833	119.082	78.995	1.00	14.91	C
ATOM 14364	CZ TYR D 406	56.206	118.754	80.188	1.00	16.13	C
ATOM 14365	OH TYR D 406	55.846	119.695	81.104	1.00	14.27	O
ATOM 14367	CE2 TYR D 406	55.906	117.447	80.482	1.00	16.65	C
ATOM 14369	CD2 TYR D 406	56.232	116.453	79.584	1.00	16.33	C
ATOM 14371	C TYR D 406	58.746	114.666	79.142	1.00	19.41	C
ATOM 14372	O TYR D 406	59.028	115.485	79.976	1.00	19.36	O
ATOM 14373	N THR D 407	58.493	113.396	79.444	1.00	20.52	N
ATOM 14375	CA THR D 407	58.482	112.931	80.835	1.00	21.10	C
ATOM 14377	CB THR D 407	57.516	111.698	81.056	1.00	20.94	C
ATOM 14379	OG1 THR D 407	57.835	110.613	80.169	1.00	20.10	O
ATOM 14381	CG2 THR D 407	56.051	112.054	80.756	1.00	19.23	C
ATOM 14385	C THR D 407	59.906	112.630	81.289	1.00	22.45	C
ATOM 14386	O THR D 407	60.283	112.953	82.408	1.00	22.09	O
ATOM 14387	N ARG D 408	60.701	112.039	80.403	1.00	24.36	N
ATOM 14389	CA ARG D 408	62.096	111.730	80.698	1.00	26.24	C
ATOM 14391	CB ARG D 408	62.793	111.078	79.486	1.00	26.81	C
ATOM 14394	CG ARG D 408	64.370	111.225	79.434	1.00	30.29	C
ATOM 14397	CD ARG D 408	65.132	110.223	78.489	1.00	34.24	C
ATOM 14400	NE ARG D 408	64.408	108.944	78.269	1.00	37.86	N
ATOM 14402	CZ ARG D 408	63.554	108.681	77.252	1.00	38.72	C
ATOM 14403	NH1 ARG D 408	63.292	109.603	76.318	1.00	39.53	N
ATOM 14406	NH2 ARG D 408	62.956	107.486	77.169	1.00	37.88	N
ATOM 14409	C ARG D 408	62.817	112.997	81.095	1.00	27.27	C
ATOM 14410	O ARG D 408	63.692	112.956	81.959	1.00	27.78	O
ATOM 14411	N ILE D 409	62.431	114.115	80.464	1.00	28.53	N
ATOM 14413	CA ILE D 409	63.077	115.424	80.630	1.00	29.10	C
ATOM 14415	CB ILE D 409	63.066	116.182	79.281	1.00	29.21	C
ATOM 14417	CG1 ILE D 409	64.268	115.730	78.431	1.00	29.57	C
ATOM 14420	CD1 ILE D 409	64.193	116.098	76.959	1.00	29.86	C
ATOM 14424	CG2 ILE D 409	63.061	117.705	79.493	1.00	29.59	C
ATOM 14428	C ILE D 409	62.487	116.276	81.765	1.00	29.69	C
ATOM 14429	O ILE D 409	63.228	116.746	82.592	1.00	29.72	O
ATOM 14430	N LYS D 410	61.178	116.487	81.800	1.00	30.89	N
ATOM 14432	CA LYS D 410	60.531	117.179	82.918	1.00	32.02	C
ATOM 14434	CB LYS D 410	59.002	117.161	82.774	1.00	32.44	C
ATOM 14437	CG LYS D 410	58.190	117.327	84.113	1.00	32.79	C
ATOM 14440	CD LYS D 410	56.837	116.581	84.104	1.00	31.65	C
ATOM 14443	CE LYS D 410	55.787	117.260	85.007	1.00	30.17	C
ATOM 14446	NZ LYS D 410	56.117	117.221	86.431	1.00	28.02	N
ATOM 14450	C LYS D 410	60.875	116.538	84.243	1.00	33.11	C
ATOM 14451	O LYS D 410	61.362	117.206	85.148	1.00	33.27	O
ATOM 14452	N ARG D 411	60.585	115.245	84.363	1.00	34.55	N
ATOM 14454	CA ARG D 411	60.703	114.520	85.639	1.00	35.80	C
ATOM 14456	CB ARG D 411	59.308	114.044	86.094	1.00	36.44	C
ATOM 14459	CG ARG D 411	58.489	115.071	86.893	1.00	39.72	C
ATOM 14462	CD ARG D 411	58.082	114.617	88.323	1.00	44.12	C
ATOM 14465	NE ARG D 411	56.621	114.515	88.483	1.00	47.54	N

346

ATOM 14467	CZ ARG D 411	55.999	114.009	89.559	1.00	50.05	C
ATOM 14468	NH1 ARG D 411	56.695	113.552	90.609	1.00	50.31	N
ATOM 14471	NH2 ARG D 411	54.663	113.974	89.588	1.00	50.69	N
ATOM 14474	C ARG D 411	61.636	113.306	85.530	1.00	35.61	C
ATOM 14475	O ARG D 411	61.169	112.168	85.573	1.00	35.68	O
ATOM 14476	N PRO D 412	62.947	113.518	85.419	1.00	35.51	N
ATOM 14477	CA PRO D 412	63.854	112.390	85.140	1.00	35.54	C
ATOM 14479	CB PRO D 412	65.249	113.049	85.043	1.00	35.48	C
ATOM 14482	CG PRO D 412	65.101	114.467	85.498	1.00	35.29	C
ATOM 14485	CD PRO D 412	63.656	114.800	85.575	1.00	35.29	C
ATOM 14488	C PRO D 412	63.811	111.271	86.211	1.00	35.66	C
ATOM 14489	O PRO D 412	64.209	110.132	85.929	1.00	35.74	O
ATOM 14490	N GLN D 413	63.280	111.594	87.394	1.00	35.64	N
ATOM 14492	CA GLN D 413	63.360	110.739	88.585	1.00	35.41	C
ATOM 14494	CB GLN D 413	63.624	111.604	89.827	1.00	35.43	C
ATOM 14497	CG GLN D 413	64.420	112.883	89.582	1.00	35.38	C
ATOM 14500	CD GLN D 413	65.705	112.904	90.352	1.00	35.03	C
ATOM 14501	OE1 GLN D 413	65.725	113.297	91.515	1.00	34.71	O
ATOM 14502	NE2 GLN D 413	66.788	112.476	89.712	1.00	35.14	N
ATOM 14505	C GLN D 413	62.107	109.877	88.846	1.00	35.14	C
ATOM 14506	O GLN D 413	62.034	109.185	89.868	1.00	35.15	O
ATOM 14507	N ASP D 414	61.124	109.937	87.952	1.00	34.61	N
ATOM 14509	CA ASP D 414	59.931	109.106	88.057	1.00	34.34	C
ATOM 14511	CB ASP D 414	58.702	109.985	88.325	1.00	34.59	C
ATOM 14514	CG ASP D 414	57.478	109.181	88.766	1.00	35.67	C
ATOM 14515	OD1 ASP D 414	57.651	108.168	89.474	1.00	35.66	O
ATOM 14516	OD2 ASP D 414	56.296	109.494	88.467	1.00	37.51	O
ATOM 14517	C ASP D 414	59.774	108.314	86.762	1.00	33.63	C
ATOM 14518	O ASP D 414	59.101	108.754	85.850	1.00	33.48	O
ATOM 14519	N GLN D 415	60.427	107.159	86.676	1.00	33.06	N
ATOM 14521	CA GLN D 415	60.407	106.343	85.453	1.00	32.58	C
ATOM 14523	CB GLN D 415	61.481	105.242	85.500	1.00	32.89	C
ATOM 14526	CG GLN D 415	62.742	105.530	84.689	1.00	33.42	C
ATOM 14529	CD GLN D 415	63.769	104.401	84.790	1.00	34.07	C
ATOM 14530	OE1 GLN D 415	63.678	103.410	84.069	1.00	34.50	O
ATOM 14531	NE2 GLN D 415	64.742	104.551	85.685	1.00	34.30	N
ATOM 14534	C GLN D 415	59.034	105.706	85.198	1.00	31.88	C
ATOM 14535	O GLN D 415	58.685	105.460	84.044	1.00	31.77	O
ATOM 14536	N LEU D 416	58.268	105.459	86.268	1.00	30.95	N
ATOM 14538	CA LEU D 416	56.920	104.880	86.177	1.00	30.43	C
ATOM 14540	CB LEU D 416	56.521	104.222	87.489	1.00	30.43	C
ATOM 14543	CG LEU D 416	57.531	103.266	88.119	1.00	31.29	C
ATOM 14545	CD1 LEU D 416	57.081	102.858	89.539	1.00	31.25	C
ATOM 14549	CD2 LEU D 416	57.737	102.053	87.210	1.00	31.92	C
ATOM 14553	C LEU D 416	55.839	105.898	85.858	1.00	29.89	C
ATOM 14554	O LEU D 416	54.700	105.549	85.668	1.00	30.26	O
ATOM 14555	N ARG D 417	56.192	107.166	85.845	1.00	29.36	N
ATOM 14557	CA ARG D 417	55.268	108.235	85.513	1.00	28.75	C

347

ATOM 14559	CB ARG D 417	56.056	109.542	85.476	1.00	29.25	C
ATOM 14562	CG ARG D 417	55.308	110.758	85.888	1.00	31.25	C
ATOM 14565	CD ARG D 417	55.780	112.009	85.138	1.00	33.19	C
ATOM 14568	NE ARG D 417	55.266	113.199	85.785	1.00	34.76	N
ATOM 14570	CZ ARG D 417	53.993	113.513	85.807	1.00	37.31	C
ATOM 14571	NH1 ARG D 417	53.109	112.745	85.184	1.00	39.76	N
ATOM 14574	NH2 ARG D 417	53.588	114.610	86.426	1.00	38.44	N
ATOM 14577	C ARG D 417	54.618	107.990	84.148	1.00	27.48	C
ATOM 14578	O ARG D 417	53.385	107.942	84.021	1.00	27.07	O
ATOM 14579	N PHE D 418	55.457	107.834	83.127	1.00	25.85	N
ATOM 14581	CA PHE D 418	54.958	107.667	81.766	1.00	24.54	C
ATOM 14583	CB PHE D 418	56.122	107.534	80.769	1.00	24.61	C
ATOM 14586	CG PHE D 418	55.696	107.188	79.378	1.00	23.32	C
ATOM 14587	CD1 PHE D 418	54.917	108.078	78.641	1.00	22.26	C
ATOM 14589	CE1 PHE D 418	54.518	107.786	77.357	1.00	22.16	C
ATOM 14591	CZ PHE D 418	54.891	106.587	76.783	1.00	24.31	C
ATOM 14593	CE2 PHE D 418	55.679	105.676	77.526	1.00	25.48	C
ATOM 14595	CD2 PHE D 418	56.076	105.989	78.810	1.00	23.20	C
ATOM 14597	C PHE D 418	53.974	106.500	81.655	1.00	23.42	C
ATOM 14598	O PHE D 418	52.875	106.688	81.148	1.00	22.44	O
ATOM 14599	N PRO D 419	54.361	105.298	82.096	1.00	22.50	N
ATOM 14600	CA PRO D 419	53.443	104.152	82.092	1.00	21.99	C
ATOM 14602	CB PRO D 419	54.321	102.995	82.532	1.00	21.81	C
ATOM 14605	CG PRO D 419	55.475	103.565	83.062	1.00	22.24	C
ATOM 14608	CD PRO D 419	55.711	104.889	82.483	1.00	22.02	C
ATOM 14611	C PRO D 419	52.198	104.274	82.958	1.00	21.58	C
ATOM 14612	O PRO D 419	51.164	103.814	82.550	1.00	20.83	O
ATOM 14613	N ARG D 420	52.267	104.906	84.102	1.00	21.99	N
ATOM 14615	CA ARG D 420	51.044	105.174	84.843	1.00	23.26	C
ATOM 14617	CB ARG D 420	51.349	105.893	86.160	1.00	23.88	C
ATOM 14620	CG ARG D 420	51.870	104.968	87.251	1.00	26.16	C
ATOM 14623	CD ARG D 420	51.849	105.581	88.622	1.00	29.60	C
ATOM 14626	NE ARG D 420	53.001	105.155	89.403	1.00	32.35	N
ATOM 14628	CZ ARG D 420	54.079	105.901	89.662	1.00	35.11	C
ATOM 14629	NH1 ARG D 420	54.197	107.158	89.217	1.00	35.49	N
ATOM 14632	NH2 ARG D 420	55.056	105.378	90.398	1.00	36.26	N
ATOM 14635	C ARG D 420	50.037	106.008	84.047	1.00	23.47	C
ATOM 14636	O ARG D 420	48.821	105.857	84.213	1.00	23.23	O
ATOM 14637	N MET D 421	50.539	106.904	83.205	1.00	23.89	N
ATOM 14639	CA MET D 421	49.664	107.759	82.417	1.00	24.26	C
ATOM 14641	CB MET D 421	50.419	108.942	81.815	1.00	24.93	C
ATOM 14644	CG MET D 421	51.175	109.808	82.828	1.00	26.72	C
ATOM 14647	SD MET D 421	52.122	111.087	82.001	1.00	29.13	S
ATOM 14648	CE MET D 421	50.840	111.852	81.119	1.00	31.24	C
ATOM 14652	C MET D 421	49.016	106.984	81.306	1.00	23.71	C
ATOM 14653	O MET D 421	47.846	107.178	81.053	1.00	23.34	O
ATOM 14654	N LEU D 422	49.778	106.117	80.636	1.00	23.83	N
ATOM 14656	CA LEU D 422	49.211	105.221	79.611	1.00	23.76	C

348

ATOM 14658 CB LEU D 422	50.283 104.347 78.963 1.00 23.64	C
ATOM 14661 CG LEU D 422	51.351 105.058 78.132 1.00 24.63	C
ATOM 14663 CD1 LEU D 422	52.224 104.051 77.470 1.00 26.16	C
ATOM 14667 CD2 LEU D 422	50.771 105.927 77.085 1.00 25.19	C
ATOM 14671 C LEU D 422	48.141 104.335 80.217 1.00 23.44	C
ATOM 14672 O LEU D 422	47.150 104.031 79.586 1.00 23.45	O
ATOM 14673 N MET D 423	48.326 103.952 81.464 1.00 23.51	N
ATOM 14675 CA MET D 423	47.413 103.037 82.103 1.00 23.89	C
ATOM 14677 CB MET D 423	48.065 102.407 83.324 1.00 24.92	C
ATOM 14680 CG MET D 423	48.117 100.894 83.262 1.00 29.02	C
ATOM 14683 SD MET D 423	49.756 100.266 82.996 1.00 36.10	S
ATOM 14684 CE MET D 423	50.270 100.108 84.644 1.00 35.85	C
ATOM 14688 C MET D 423	46.125 103.730 82.488 1.00 22.97	C
ATOM 14689 O MET D 423	45.111 103.097 82.699 1.00 22.90	O
ATOM 14690 N LYS D 424	46.131 105.042 82.569 1.00 22.20	N
ATOM 14692 CA LYS D 424	44.872 105.722 82.782 1.00 21.40	C
ATOM 14694 CB LYS D 424	45.105 107.150 83.278 1.00 21.57	C
ATOM 14697 CG LYS D 424	45.961 107.252 84.560 1.00 21.85	C
ATOM 14700 CD LYS D 424	45.176 106.906 85.803 1.00 23.55	C
ATOM 14703 CE LYS D 424	46.086 106.499 86.958 1.00 26.09	C
ATOM 14706 NZ LYS D 424	46.502 105.039 86.931 1.00 25.70	N
ATOM 14710 C LYS D 424	44.026 105.664 81.485 1.00 20.77	C
ATOM 14711 O LYS D 424	42.799 105.745 81.557 1.00 20.70	O
ATOM 14712 N LEU D 425	44.655 105.508 80.311 1.00 19.71	N
ATOM 14714 CA LEU D 425	43.888 105.269 79.056 1.00 19.37	C
ATOM 14716 CB LEU D 425	44.767 105.258 77.786 1.00 19.22	C
ATOM 14719 CG LEU D 425	45.631 106.510 77.569 1.00 19.46	C
ATOM 14721 CD1 LEU D 425	46.741 106.209 76.606 1.00 20.06	C
ATOM 14725 CD2 LEU D 425	44.793 107.672 77.105 1.00 18.98	C
ATOM 14729 C LEU D 425	43.117 103.956 79.138 1.00 18.66	C
ATOM 14730 O LEU D 425	42.015 103.834 78.597 1.00 18.91	O
ATOM 14731 N VAL D 426	43.704 102.982 79.828 1.00 17.67	N
ATOM 14733 CA VAL D 426	43.076 101.685 80.040 1.00 16.70	C
ATOM 14735 CB VAL D 426	44.030 100.736 80.747 1.00 16.59	C
ATOM 14737 CG1 VAL D 426	43.374 99.410 80.951 1.00 16.22	C
ATOM 14741 CG2 VAL D 426	45.325 100.574 79.950 1.00 16.64	C
ATOM 14745 C VAL D 426	41.835 101.872 80.897 1.00 16.09	C
ATOM 14746 O VAL D 426	40.722 101.485 80.524 1.00 14.69	O
ATOM 14747 N SER D 427	42.041 102.505 82.044 1.00 15.87	N
ATOM 14749 CA SER D 427	40.922 102.904 82.897 1.00 16.06	C
ATOM 14751 CB SER D 427	41.417 103.777 84.032 1.00 15.33	C
ATOM 14754 OG SER D 427	42.222 102.987 84.849 1.00 15.12	O
ATOM 14756 C SER D 427	39.811 103.624 82.127 1.00 16.35	C
ATOM 14757 O SER D 427	38.634 103.373 82.353 1.00 15.56	O
ATOM 14758 N LEU D 428	40.198 104.493 81.210 1.00 17.44	N
ATOM 14760 CA LEU D 428	39.234 105.305 80.471 1.00 18.87	C
ATOM 14762 CB LEU D 428	39.935 106.401 79.629 1.00 19.18	C
ATOM 14765 CG LEU D 428	40.366 107.614 80.448 1.00 19.96	C

349

ATOM 14767	CD1 LEU D 428	41.417 108.412 79.734 1.00 21.00	C
ATOM 14771	CD2 LEU D 428	39.153 108.468 80.740 1.00 21.25	C
ATOM 14775	C LEU D 428	38.334 104.440 79.593 1.00 19.28	C
ATOM 14776	O LEU D 428	37.184 104.791 79.387 1.00 19.13	O
ATOM 14777	N ARG D 429	38.846 103.318 79.085 1.00 19.93	N
ATOM 14779	CA ARG D 429	37.989 102.374 78.371 1.00 20.40	C
ATOM 14781	CB ARG D 429	38.795 101.180 77.848 1.00 20.56	C
ATOM 14784	CG ARG D 429	39.753 101.536 76.746 1.00 20.68	C
ATOM 14787	CD ARG D 429	39.084 102.241 75.590 1.00 22.12	C
ATOM 14790	NE ARG D 429	40.030 102.849 74.663 1.00 23.03	N
ATOM 14792	CZ ARG D 429	40.429 102.299 73.527 1.00 23.00	C
ATOM 14793	NH1 ARG D 429	39.960 101.113 73.155 1.00 22.44	N
ATOM 14796	NH2 ARG D 429	41.294 102.948 72.758 1.00 22.24	N
ATOM 14799	C ARG D 429	36.876 101.892 79.269 1.00 20.37	C
ATOM 14800	O ARG D 429	35.725 102.054 78.975 1.00 20.47	O
ATOM 14801	N THR D 430	37.241 101.304 80.388 1.00 20.88	N
ATOM 14803	CA THR D 430	36.261 100.795 81.311 1.00 20.80	C
ATOM 14805	CB THR D 430	36.964 100.260 82.527 1.00 20.78	C
ATOM 14807	OG1 THR D 430	37.642 99.059 82.162 1.00 20.52	O
ATOM 14809	CG2 THR D 430	35.968 99.830 83.570 1.00 21.13	C
ATOM 14813	C THR D 430	35.223 101.833 81.709 1.00 20.95	C
ATOM 14814	O THR D 430	34.040 101.505 81.732 1.00 21.43	O
ATOM 14815	N LEU D 431	35.656 103.061 82.031 1.00 20.54	N
ATOM 14817	CA LEU D 431	34.749 104.140 82.477 1.00 20.19	C
ATOM 14819	CB LEU D 431	35.526 105.346 83.034 1.00 20.21	C
ATOM 14822	CG LEU D 431	36.303 105.113 84.328 1.00 20.32	C
ATOM 14824	CD1 LEU D 431	37.465 106.062 84.469 1.00 20.58	C
ATOM 14828	CD2 LEU D 431	35.395 105.222 85.522 1.00 21.74	C
ATOM 14832	C LEU D 431	33.825 104.619 81.356 1.00 20.15	C
ATOM 14833	O LEU D 431	32.703 105.037 81.613 1.00 20.28	O
ATOM 14834	N SER D 432	34.304 104.570 80.119 1.00 19.98	N
ATOM 14836	CA SER D 432	33.454 104.740 78.954 1.00 20.33	C
ATOM 14838	CB SER D 432	34.276 104.563 77.686 1.00 20.57	C
ATOM 14841	OG SER D 432	33.496 104.797 76.542 1.00 22.05	O
ATOM 14843	C SER D 432	32.280 103.754 78.949 1.00 20.25	C
ATOM 14844	O SER D 432	31.147 104.144 78.686 1.00 20.04	O
ATOM 14845	N SER D 433	32.543 102.483 79.241 1.00 20.49	N
ATOM 14847	CA SER D 433	31.457 101.503 79.409 1.00 21.09	C
ATOM 14849	CB SER D 433	31.982 100.082 79.627 1.00 20.76	C
ATOM 14852	OG SER D 433	32.633 99.597 78.477 1.00 21.59	O
ATOM 14854	C SER D 433	30.523 101.866 80.575 1.00 21.52	C
ATOM 14855	O SER D 433	29.292 101.731 80.455 1.00 21.68	O
ATOM 14856	N VAL D 434	31.098 102.308 81.703 1.00 21.43	N
ATOM 14858	CA VAL D 434	30.290 102.612 82.880 1.00 21.01	C
ATOM 14860	CB VAL D 434	31.151 102.911 84.139 1.00 20.94	C
ATOM 14862	CG1 VAL D 434	30.306 103.477 85.278 1.00 19.93	C
ATOM 14866	CG2 VAL D 434	31.849 101.639 84.591 1.00 20.57	C
ATOM 14870	C VAL D 434	29.340 103.749 82.520 1.00 20.91	C

350

ATOM 14871	O	VAL D 434	28.181	103.740	82.932	1.00	20.75	O
ATOM 14872	N	HIS D 435	29.812	104.690	81.709	1.00	20.77	N
ATOM 14874	CA	HIS D 435	28.947	105.756	81.223	1.00	20.87	C
ATOM 14876	CB	HIS D 435	29.755	106.781	80.437	1.00	20.96	C
ATOM 14879	CG	HIS D 435	28.948	107.955	79.983	1.00	20.27	C
ATOM 14880	ND1	HIS D 435	28.610	108.153	78.664	1.00	19.83	N
ATOM 14882	CE1	HIS D 435	27.899	109.261	78.564	1.00	20.87	C
ATOM 14884	NE2	HIS D 435	27.768	109.787	79.768	1.00	19.82	N
ATOM 14886	CD2	HIS D 435	28.412	108.989	80.673	1.00	19.48	C
ATOM 14888	C	HIS D 435	27.785	105.218	80.364	1.00	21.06	C
ATOM 14889	O	HIS D 435	26.653	105.667	80.513	1.00	20.43	O
ATOM 14890	N	SER D 436	28.066	104.251	79.492	1.00	21.62	N
ATOM 14892	CA	SER D 436	27.048	103.693	78.597	1.00	22.25	C
ATOM 14894	CB	SER D 436	27.635	102.613	77.673	1.00	22.24	C
ATOM 14897	OG	SER D 436	28.544	103.161	76.746	1.00	22.26	O
ATOM 14899	C	SER D 436	25.900	103.098	79.376	1.00	23.00	C
ATOM 14900	O	SER D 436	24.731	103.265	79.004	1.00	22.72	O
ATOM 14901	N	GLU D 437	26.244	102.374	80.442	1.00	24.39	N
ATOM 14903	CA	GLU D 437	25.248	101.785	81.336	1.00	25.46	C
ATOM 14905	CB	GLU D 437	25.886	100.835	82.374	1.00	26.10	C
ATOM 14908	CG	GLU D 437	26.469	99.507	81.849	1.00	29.07	C
ATOM 14911	CD	GLU D 437	27.834	99.149	82.489	1.00	33.54	C
ATOM 14912	OE1	GLU D 437	28.743	98.623	81.792	1.00	35.86	O
ATOM 14913	OE2	GLU D 437	28.027	99.402	83.705	1.00	36.22	O
ATOM 14914	C	GLU D 437	24.473	102.911	82.029	1.00	25.31	C
ATOM 14915	O	GLU D 437	23.283	102.795	82.201	1.00	25.02	O
ATOM 14916	N	GLN D 438	25.149	104.004	82.391	1.00	25.86	N
ATOM 14918	CA	GLN D 438	24.489	105.178	82.982	1.00	26.26	C
ATOM 14920	CB	GLN D 438	25.511	106.198	83.535	1.00	25.96	C
ATOM 14923	CG	GLN D 438	24.913	107.543	84.040	1.00	25.07	C
ATOM 14926	CD	GLN D 438	23.981	107.423	85.262	1.00	23.70	C
ATOM 14927	OE1	GLN D 438	24.329	107.882	86.341	1.00	23.20	O
ATOM 14928	NE2	GLN D 438	22.802	106.843	85.078	1.00	20.30	N
ATOM 14931	C	GLN D 438	23.476	105.859	82.044	1.00	26.98	C
ATOM 14932	O	GLN D 438	22.394	106.234	82.496	1.00	26.77	O
ATOM 14933	N	VAL D 439	23.790	106.006	80.756	1.00	28.01	N
ATOM 14935	CA	VAL D 439	22.793	106.566	79.825	1.00	29.01	C
ATOM 14937	CB	VAL D 439	23.380	107.177	78.503	1.00	28.96	C
ATOM 14939	CG1	VAL D 439	24.868	107.455	78.621	1.00	29.12	C
ATOM 14943	CG2	VAL D 439	23.059	106.329	77.253	1.00	28.94	C
ATOM 14947	C	VAL D 439	21.681	105.562	79.515	1.00	29.89	C
ATOM 14948	O	VAL D 439	20.596	105.959	79.118	1.00	30.22	O
ATOM 14949	N	PHE D 440	21.948	104.275	79.707	1.00	30.95	N
ATOM 14951	CA	PHE D 440	20.925	103.243	79.536	1.00	31.85	C
ATOM 14953	CB	PHE D 440	21.595	101.873	79.329	1.00	32.19	C
ATOM 14956	CG	PHE D 440	20.629	100.727	79.119	1.00	32.84	C
ATOM 14957	CD1	PHE D 440	20.052	100.503	77.870	1.00	33.02	C
ATOM 14959	CE1	PHE D 440	19.169	99.434	77.679	1.00	33.73	C

351

ATOM 14961	CZ PHE D 440	18.864	98.571	78.748	1.00	33.65	C
ATOM 14963	CE2 PHE D 440	19.440	98.780	79.999	1.00	33.58	C
ATOM 14965	CD2 PHE D 440	20.323	99.850	80.178	1.00	34.01	C
ATOM 14967	C PHE D 440	19.955	103.201	80.728	1.00	32.06	C
ATOM 14968	O PHE D 440	18.838	102.719	80.588	1.00	32.15	O
ATOM 14969	N ALA D 441	20.370	103.711	81.886	1.00	32.36	N
ATOM 14971	CA ALA D 441	19.538	103.664	83.087	1.00	32.82	C
ATOM 14973	CB ALA D 441	20.377	103.888	84.327	1.00	32.64	C
ATOM 14977	C ALA D 441	18.414	104.696	83.010	1.00	33.50	C
ATOM 14978	O ALA D 441	17.235	104.359	83.161	1.00	33.86	O
ATOM 14979	N LEU D 442	18.786	105.952	82.776	1.00	34.19	N
ATOM 14981	CA LEU D 442	17.814	107.021	82.533	1.00	34.50	C
ATOM 14983	CB LEU D 442	18.474	108.413	82.454	1.00	34.50	C
ATOM 14986	CG LEU D 442	19.975	108.588	82.129	1.00	33.86	C
ATOM 14988	CD1 LEU D 442	20.188	109.612	81.037	1.00	33.44	C
ATOM 14992	CD2 LEU D 442	20.760	108.988	83.370	1.00	33.45	C
ATOM 14996	C LEU D 442	17.008	106.750	81.261	1.00	35.15	C
ATOM 14997	O LEU D 442	15.887	107.229	81.148	1.00	35.60	O
ATOM 14998	N ARG D 443	17.573	105.987	80.317	1.00	35.82	N
ATOM 15000	CA ARG D 443	16.841	105.517	79.125	1.00	36.37	C
ATOM 15002	CB ARG D 443	17.797	105.356	77.923	1.00	36.58	C
ATOM 15005	CG ARG D 443	17.097	105.137	76.553	1.00	38.14	C
ATOM 15008	CD ARG D 443	16.997	103.655	76.076	1.00	39.77	C
ATOM 15011	NE ARG D 443	17.251	103.509	74.638	1.00	40.64	N
ATOM 15013	CZ ARG D 443	18.456	103.611	74.053	1.00	41.64	C
ATOM 15014	NH1 ARG D 443	19.564	103.859	74.761	1.00	41.55	N
ATOM 15017	NH2 ARG D 443	18.553	103.465	72.739	1.00	41.66	N
ATOM 15020	C ARG D 443	16.101	104.189	79.388	1.00	36.19	C
ATOM 15021	O ARG D 443	15.027	104.153	80.001	1.00	35.94	O
ATOM 15022	N LYS D 448	15.998	111.025	79.247	1.00	25.17	N
ATOM 15024	CA LYS D 448	16.215	111.075	77.810	1.00	25.29	C
ATOM 15026	CB LYS D 448	14.890	111.330	77.087	1.00	25.32	C
ATOM 15029	CG LYS D 448	14.022	110.071	76.873	1.00	25.72	C
ATOM 15032	CD LYS D 448	12.780	109.988	77.802	1.00	25.03	C
ATOM 15035	CE LYS D 448	12.612	108.584	78.394	1.00	24.27	C
ATOM 15038	NZ LYS D 448	11.754	108.554	79.610	1.00	23.62	N
ATOM 15042	C LYS D 448	17.243	112.154	77.448	1.00	25.39	C
ATOM 15043	O LYS D 448	17.111	113.311	77.833	1.00	25.06	O
ATOM 15044	N LEU D 449	18.269	111.757	76.699	1.00	25.86	N
ATOM 15046	CA LEU D 449	19.361	112.652	76.323	1.00	26.04	C
ATOM 15048	CB LEU D 449	20.559	111.864	75.806	1.00	25.94	C
ATOM 15051	CG LEU D 449	21.493	111.168	76.782	1.00	26.55	C
ATOM 15053	CD1 LEU D 449	22.818	110.928	76.073	1.00	27.14	C
ATOM 15057	CD2 LEU D 449	21.715	111.946	78.057	1.00	26.67	C
ATOM 15061	C LEU D 449	18.964	113.622	75.224	1.00	26.24	C
ATOM 15062	O LEU D 449	18.307	113.239	74.246	1.00	26.12	O
ATOM 15063	N PRO D 450	19.420	114.864	75.343	1.00	26.53	N
ATOM 15064	CA PRO D 450	19.144	115.863	74.308	1.00	26.76	C

352

ATOM 15066	CB	PRO D 450	19.740	117.152	74.882	1.00	26.75	C
ATOM 15069	CG	PRO D 450	20.740	116.696	75.915	1.00	26.72	C
ATOM 15072	CD	PRO D 450	20.256	115.399	76.436	1.00	26.46	C
ATOM 15075	C	PRO D 450	19.835	115.441	73.018	1.00	26.95	C
ATOM 15076	O	PRO D 450	20.900	114.858	73.115	1.00	26.62	O
ATOM 15077	N	PRO D 451	19.251	115.714	71.852	1.00	27.50	N
ATOM 15078	CA	PRO D 451	19.740	115.142	70.583	1.00	27.73	C
ATOM 15080	CB	PRO D 451	18.949	115.895	69.504	1.00	27.70	C
ATOM 15083	CG	PRO D 451	17.763	116.483	70.188	1.00	27.55	C
ATOM 15086	CD	PRO D 451	18.078	116.587	71.655	1.00	27.45	C
ATOM 15089	C	PRO D 451	21.234	115.299	70.326	1.00	27.94	C
ATOM 15090	O	PRO D 451	21.815	114.398	69.720	1.00	28.24	O
ATOM 15091	N	LEU D 452	21.842	116.403	70.760	1.00	28.06	N
ATOM 15093	CA	LEU D 452	23.266	116.642	70.473	1.00	28.36	C
ATOM 15095	CB	LEU D 452	23.682	118.095	70.828	1.00	28.65	C
ATOM 15098	CG	LEU D 452	22.854	119.281	70.231	1.00	29.52	C
ATOM 15100	CD1	LEU D 452	21.801	119.881	71.212	1.00	29.54	C
ATOM 15104	CD2	LEU D 452	23.744	120.418	69.669	1.00	29.58	C
ATOM 15108	C	LEU D 452	24.161	115.589	71.170	1.00	28.18	C
ATOM 15109	O	LEU D 452	25.193	115.191	70.625	1.00	28.53	O
ATOM 15110	N	LEU D 453	23.741	115.135	72.356	1.00	27.86	N
ATOM 15112	CA	LEU D 453	24.408	114.059	73.097	1.00	27.60	C
ATOM 15114	CB	LEU D 453	24.267	114.294	74.599	1.00	27.44	C
ATOM 15117	CG	LEU D 453	24.831	115.612	75.121	1.00	26.81	C
ATOM 15119	CD1	LEU D 453	24.530	115.780	76.600	1.00	26.12	C
ATOM 15123	CD2	LEU D 453	26.325	115.688	74.855	1.00	26.44	C
ATOM 15127	C	LEU D 453	23.876	112.659	72.768	1.00	27.82	C
ATOM 15128	O	LEU D 453	24.595	111.668	72.906	1.00	27.68	O
ATOM 15129	N	SER D 454	22.619	112.581	72.340	1.00	28.20	N
ATOM 15131	CA	SER D 454	22.003	111.311	71.948	1.00	28.50	C
ATOM 15133	CB	SER D 454	20.494	111.494	71.754	1.00	28.31	C
ATOM 15136	OG	SER D 454	19.990	110.600	70.781	1.00	28.47	O
ATOM 15138	C	SER D 454	22.648	110.721	70.681	1.00	28.88	C
ATOM 15139	O	SER D 454	22.639	109.519	70.480	1.00	28.85	O
ATOM 15140	N	GLU D 455	23.225	111.572	69.845	1.00	29.68	N
ATOM 15142	CA	GLU D 455	23.884	111.124	68.620	1.00	30.43	C
ATOM 15144	CB	GLU D 455	24.142	112.310	67.664	1.00	30.88	C
ATOM 15147	CG	GLU D 455	23.906	111.988	66.179	1.00	33.31	C
ATOM 15150	CD	GLU D 455	25.186	111.630	65.404	1.00	36.35	C
ATOM 15151	OE1	GLU D 455	25.126	111.618	64.139	1.00	38.01	O
ATOM 15152	OE2	GLU D 455	26.246	111.364	66.042	1.00	37.44	O
ATOM 15153	C	GLU D 455	25.188	110.396	68.931	1.00	30.06	C
ATOM 15154	O	GLU D 455	25.619	109.522	68.178	1.00	30.05	O
ATOM 15155	N	ILE D 456	25.791	110.741	70.058	1.00	29.91	N
ATOM 15157	CA	ILE D 456	27.125	110.254	70.396	1.00	30.08	C
ATOM 15159	CB	ILE D 456	27.916	111.336	71.167	1.00	30.17	C
ATOM 15161	CG1	ILE D 456	27.740	112.718	70.543	1.00	30.89	C
ATOM 15164	CD1	ILE D 456	28.139	113.837	71.473	1.00	31.69	C

ATOM	15168	CG2 ILE D 456	29.396	110.993	71.206	1.00	30.54	C
ATOM	15172	C ILE D 456	27.066	109.011	71.270	1.00	29.78	C
ATOM	15173	O ILE D 456	27.967	108.157	71.226	1.00	29.77	O
ATOM	15174	N TRP D 457	26.013	108.920	72.075	1.00	29.47	N
ATOM	15176	CA TRP D 457	26.004	107.986	73.185	1.00	29.20	C
ATOM	15178	CB TRP D 457	25.949	108.761	74.496	1.00	29.03	C
ATOM	15181	CG TRP D 457	27.212	109.531	74.772	1.00	27.61	C
ATOM	15182	CD1 TRP D 457	28.480	109.207	74.367	1.00	26.17	C
ATOM	15184	NE1 TRP D 457	29.370	110.149	74.819	1.00	26.12	N
ATOM	15186	CE2 TRP D 457	28.690	111.112	75.522	1.00	25.26	C
ATOM	15187	CD2 TRP D 457	27.331	110.761	75.508	1.00	25.56	C
ATOM	15188	CE3 TRP D 457	26.423	111.596	76.165	1.00	24.92	C
ATOM	15190	CZ3 TRP D 457	26.886	112.724	76.788	1.00	24.01	C
ATOM	15192	CH2 TRP D 457	28.239	113.047	76.777	1.00	23.98	C
ATOM	15194	CZ2 TRP D 457	29.155	112.260	76.149	1.00	24.30	C
ATOM	15196	C TRP D 457	24.927	106.918	73.145	1.00	29.64	C
ATOM	15197	O TRP D 457	25.127	105.871	73.761	1.00	30.11	O
ATOM	15198	N ASP D 458	23.813	107.149	72.446	1.00	29.64	N
ATOM	15200	CA ASP D 458	22.871	106.067	72.163	1.00	30.00	C
ATOM	15202	CB ASP D 458	21.456	106.620	71.901	1.00	30.42	C
ATOM	15205	CG ASP D 458	20.787	107.227	73.163	1.00	31.26	C
ATOM	15206	OD1 ASP D 458	20.662	106.506	74.181	1.00	33.17	O
ATOM	15207	OD2 ASP D 458	20.323	108.401	73.214	1.00	30.31	O
ATOM	15208	C ASP D 458	23.405	105.243	70.956	1.00	29.75	C
ATOM	15209	O ASP D 458	22.662	104.510	70.272	1.00	29.41	O
ATOM	15210	O13 444 D 500	29.783	116.760	81.248	1.00	43.28	O
ATOM	15211	S12 444 D 500	30.864	116.387	82.132	1.00	42.59	S
ATOM	15212	O14 444 D 500	32.224	116.769	81.817	1.00	43.05	O
ATOM	15213	C01 444 D 500	30.406	117.217	83.634	1.00	44.92	C
ATOM	15214	C02 444 D 500	31.432	117.604	84.565	1.00	46.73	C
ATOM	15216	C03 444 D 500	31.074	118.247	85.767	1.00	47.36	C
ATOM	15218	C04 444 D 500	29.711	118.493	86.031	1.00	47.70	C
ATOM	15220	C05 444 D 500	28.700	118.103	85.104	1.00	47.53	C
ATOM	15222	C06 444 D 500	29.037	117.452	83.895	1.00	45.98	C
ATOM	15224	N15 444 D 500	30.896	114.676	82.479	1.00	34.04	N
ATOM	15225	C16 444 D 500	31.497	114.289	83.828	1.00	31.09	C
ATOM	15228	C19 444 D 500	32.388	113.140	83.555	1.00	29.66	C
ATOM	15229	F22 444 D 500	31.626	112.067	83.351	1.00	30.77	F
ATOM	15230	F21 444 D 500	33.170	112.908	84.610	1.00	29.72	F
ATOM	15231	F20 444 D 500	33.122	113.297	82.452	1.00	28.12	F
ATOM	15232	C23 444 D 500	29.617	114.039	82.203	1.00	28.86	C
ATOM	15233	C24 444 D 500	29.431	113.536	80.912	1.00	27.15	C
ATOM	15235	C25 444 D 500	28.198	112.945	80.565	1.00	25.98	C
ATOM	15237	C28 444 D 500	28.554	113.983	83.165	1.00	26.98	C
ATOM	15239	C27 444 D 500	27.328	113.383	82.828	1.00	25.42	C
ATOM	15241	C26 444 D 500	27.118	112.846	81.517	1.00	24.42	C
ATOM	15242	C33 444 D 500	25.792	112.183	81.029	1.00	22.86	C
ATOM	15243	C34 444 D 500	25.234	111.097	81.997	1.00	20.31	C

354

ATOM	15244	F36 444 D 500	24.196	110.407	81.435	1.00	15.54	F
ATOM	15245	F37 444 D 500	26.246	110.287	82.370	1.00	20.02	F
ATOM	15246	F35 444 D 500	24.792	111.597	83.166	1.00	20.09	F
ATOM	15247	O42 444 D 500	25.988	111.622	79.680	1.00	24.12	O
ATOM	15249	C38 444 D 500	24.688	113.270	80.950	1.00	22.86	C
ATOM	15250	F39 444 D 500	24.402	113.916	82.114	1.00	21.70	F
ATOM	15251	F40 444 D 500	25.139	114.271	80.152	1.00	23.02	F
ATOM	15252	F41 444 D 500	23.522	112.780	80.476	1.00	21.85	F
ATOM	15253	OH2 HOH X 1	46.532	92.966	60.943	1.00	34.51	O
ATOM	15256	OH2 HOH X 2	43.940	86.741	60.458	1.00	21.54	O
ATOM	15259	OH2 HOH X 3	-8.517	37.033	50.353	1.00	32.34	O
ATOM	15262	OH2 HOH X 4	32.880	22.773	46.224	1.00	35.84	O
ATOM	15265	OH2 HOH X 5	14.230	40.833	44.521	1.00	26.16	O
ATOM	15268	OH2 HOH X 6	-4.506	33.429	56.969	1.00	22.66	O
ATOM	15271	OH2 HOH X 7	1.182	33.211	51.836	1.00	25.14	O
ATOM	15274	OH2 HOH X 8	42.367	92.308	87.001	1.00	31.51	O
ATOM	15277	OH2 HOH X 9	10.330	38.054	50.008	1.00	29.19	O
ATOM	15280	OH2 HOH X 10	11.484	48.043	48.250	1.00	27.34	O
ATOM	15283	OH2 HOH X 11	61.225	114.890	67.101	1.00	38.72	O
ATOM	15286	OH2 HOH X 12	41.090	104.749	75.930	1.00	39.93	O
ATOM	15289	OH2 HOH X 13	43.103	95.687	80.489	1.00	29.34	O
ATOM	15292	OH2 HOH X 14	39.300	107.966	69.692	1.00	30.35	O
ATOM	15295	OH2 HOH X 15	7.458	49.068	50.128	1.00	28.92	O
ATOM	15298	OH2 HOH X 16	10.240	45.008	40.909	1.00	32.15	O
ATOM	15301	OH2 HOH X 17	2.836	16.569	62.303	1.00	34.89	O
ATOM	15304	OH2 HOH X 18	20.897	45.121	29.759	1.00	36.12	O
ATOM	15307	OH2 HOH X 20	-24.434	20.835	48.248	1.00	41.60	O
ATOM	15310	OH2 HOH X 21	33.739	89.574	78.961	1.00	33.24	O
ATOM	15313	OH2 HOH X 22	40.099	90.209	61.705	1.00	31.52	O
ATOM	15316	OH2 HOH X 23	55.511	82.920	79.410	1.00	42.28	O
ATOM	15319	OH2 HOH X 24	23.880	31.530	42.241	1.00	31.86	O
ATOM	15322	OH2 HOH X 25	8.960	44.376	48.177	1.00	35.40	O
ATOM	15325	OH2 HOH X 26	36.847	88.047	82.041	1.00	29.20	O
ATOM	15328	OH2 HOH X 27	5.113	40.886	61.707	1.00	37.26	O
ATOM	15331	OH2 HOH X 28	16.518	33.981	29.281	1.00	33.23	O
ATOM	15334	OH2 HOH X 29	6.099	60.077	49.223	1.00	48.04	O
ATOM	15337	OH2 HOH X 30	61.699	85.208	92.702	1.00	22.47	O
ATOM	15340	OH2 HOH X 31	30.566	91.470	70.226	1.00	43.75	O
ATOM	15343	OH2 HOH X 32	40.885	82.761	59.479	1.00	35.50	O
ATOM	15346	OH2 HOH X 33	19.677	39.489	29.060	1.00	26.50	O
ATOM	15349	OH2 HOH X 34	12.819	44.208	34.109	1.00	39.68	O
ATOM	15352	OH2 HOH X 35	32.930	39.602	48.595	1.00	42.39	O
ATOM	15355	OH2 HOH X 36	23.749	36.540	35.504	1.00	25.43	O
ATOM	15358	OH2 HOH X 37	24.708	25.459	46.968	1.00	33.72	O
ATOM	15361	OH2 HOH X 38	49.099	77.477	91.071	1.00	40.02	O
ATOM	15364	OH2 HOH X 39	33.753	105.012	66.983	1.00	42.25	O
ATOM	15367	OH2 HOH X 40	7.607	41.675	44.947	1.00	33.21	O
ATOM	15370	OH2 HOH X 41	5.145	27.301	63.404	1.00	34.78	O

355

ATOM	15373	OH2 HOH X	42	16.656	43.571	31.693	1.00	39.41	O
ATOM	15376	OH2 HOH X	43	42.928	104.982	74.371	1.00	41.79	O
ATOM	15379	OH2 HOH X	44	57.847	85.188	90.141	1.00	33.55	O
ATOM	15382	OH2 HOH X	45	29.538	70.693	76.936	1.00	30.56	O
ATOM	15385	OH2 HOH X	46	12.599	46.276	27.929	1.00	49.86	O
ATOM	15388	OH2 HOH X	47	28.126	22.913	46.477	1.00	47.72	O
ATOM	15391	OH2 HOH X	48	11.129	33.667	46.692	1.00	49.46	O
ATOM	15394	OH2 HOH X	49	-11.613	23.589	62.844	1.00	54.23	O
ATOM	15397	OH2 HOH X	50	-1.060	49.229	56.547	1.00	46.16	O
ATOM	15400	OH2 HOH X	51	37.636	92.539	81.720	1.00	36.58	O
ATOM	15403	OH2 HOH X	52	27.519	41.154	40.197	1.00	35.37	O
ATOM	15406	OH2 HOH X	53	40.050	99.057	64.126	1.00	52.91	O
ATOM	15409	OH2 HOH X	54	-19.683	26.686	47.468	1.00	44.72	O
ATOM	15412	OH2 HOH X	55	50.246	84.320	94.984	1.00	34.24	O
ATOM	15415	OH2 HOH X	56	16.902	38.476	34.555	1.00	32.06	O
ATOM	15418	OH2 HOH X	57	38.060	67.355	68.317	1.00	41.43	O
ATOM	15421	OH2 HOH X	58	60.904	94.982	89.432	1.00	34.65	O
ATOM	15424	OH2 HOH X	59	-17.325	22.794	57.113	1.00	46.37	O
ATOM	15427	OH2 HOH X	60	3.362	13.072	65.124	1.00	38.40	O
ATOM	15430	OH2 HOH X	61	34.741	105.795	74.730	1.00	37.68	O
ATOM	15433	OH2 HOH X	62	36.894	71.754	79.474	1.00	32.98	O
ATOM	15436	OH2 HOH X	63	13.379	32.879	42.381	1.00	41.41	O
ATOM	15439	OH2 HOH X	64	46.404	124.169	78.443	1.00	35.68	O
ATOM	15442	OH2 HOH X	65	45.804	94.373	63.138	1.00	38.40	O
ATOM	15445	OH2 HOH X	66	51.421	95.969	67.069	1.00	43.00	O
ATOM	15448	OH2 HOH X	67	11.339	36.149	48.061	1.00	34.37	O
ATOM	15451	OH2 HOH X	68	34.894	90.045	94.991	1.00	51.93	O
ATOM	15454	OH2 HOH X	69	12.975	47.342	35.353	1.00	39.82	O
ATOM	15457	OH2 HOH X	70	63.059	87.658	92.928	1.00	42.47	O
ATOM	15460	OH2 HOH X	71	33.804	93.321	79.878	1.00	47.03	O
ATOM	15463	OH2 HOH X	72	2.417	31.051	61.473	1.00	41.02	O
ATOM	15466	OH2 HOH X	73	17.739	57.775	68.846	1.00	51.94	O
ATOM	15469	OH2 HOH X	74	25.040	39.514	30.274	1.00	35.46	O
ATOM	15472	OH2 HOH X	75	9.628	47.145	38.834	1.00	35.97	O
ATOM	15475	OH2 HOH X	76	-1.455	38.558	54.975	1.00	43.93	O
ATOM	15478	OH2 HOH X	77	23.890	32.054	65.767	1.00	40.56	O
ATOM	15481	OH2 HOH X	78	35.220	87.143	59.408	1.00	47.79	O
ATOM	15484	OH2 HOH X	79	-3.737	37.957	51.063	1.00	37.26	O
ATOM	15487	OH2 HOH X	80	26.390	20.517	51.266	1.00	41.78	O
ATOM	15490	OH2 HOH X	81	44.780	96.146	82.783	1.00	40.78	O
ATOM	15493	OH2 HOH X	82	61.022	96.896	91.425	1.00	47.39	O
ATOM	15496	OH2 HOH X	83	10.746	33.408	64.943	1.00	41.11	O
ATOM	15499	OH2 HOH X	84	42.068	92.559	99.125	1.00	40.71	O
ATOM	15502	OH2 HOH X	85	37.825	95.713	83.950	1.00	42.10	O
ATOM	15505	OH2 HOH X	86	18.527	38.924	32.746	1.00	31.46	O
ATOM	15508	OH2 HOH X	87	34.168	36.470	54.739	1.00	39.12	O
ATOM	15511	OH2 HOH X	88	19.596	48.522	72.373	1.00	46.37	O
ATOM	15514	OH2 HOH X	89	11.760	55.470	73.671	1.00	46.11	O

356

ATOM	15517	OH2 HOH X	90	57.669	113.347	68.754	1.00	41.84	O
ATOM	15520	OH2 HOH X	91	-6.478	40.654	47.625	1.00	35.45	O
ATOM	15523	OH2 HOH X	92	21.629	59.988	53.544	1.00	43.70	O
ATOM	15526	OH2 HOH X	93	46.330	74.545	84.817	1.00	51.22	O
ATOM	15529	OH2 HOH X	94	-0.340	39.090	62.724	1.00	62.65	O
ATOM	15532	OH2 HOH X	95	62.907	120.631	75.543	1.00	59.06	O
ATOM	15535	OH2 HOH X	96	8.178	27.884	44.411	1.00	51.10	O
ATOM	15538	OH2 HOH X	97	27.884	88.496	62.492	1.00	40.76	O
ATOM	15541	OH2 HOH X	98	-8.889	15.690	48.102	1.00	48.95	O
ATOM	15544	OH2 HOH X	99	9.002	52.589	72.903	1.00	50.58	O
ATOM	15547	OH2 HOH X	100	31.344	29.561	45.713	1.00	43.51	O
ATOM	15550	OH2 HOH X	101	18.153	37.397	64.337	1.00	54.94	O
ATOM	15553	OH2 HOH X	102	1.030	50.658	57.245	1.00	37.76	O
ATOM	15556	OH2 HOH X	103	29.712	106.432	76.942	1.00	40.89	O
ATOM	15559	OH2 HOH X	104	22.984	38.071	63.390	1.00	42.03	O
ATOM	15562	OH2 HOH X	105	51.193	79.769	95.149	1.00	45.76	O
ATOM	15565	OH2 HOH X	106	33.792	91.621	90.143	1.00	51.13	O
ATOM	15568	OH2 HOH X	107	36.239	92.488	88.867	1.00	39.52	O
ATOM	15571	OH2 HOH X	108	-3.601	13.130	44.654	1.00	54.47	O
ATOM	15574	OH2 HOH X	109	49.245	108.437	58.969	1.00	35.43	O
ATOM	15577	OH2 HOH X	110	-18.430	23.420	50.306	1.00	39.52	O
ATOM	15580	OH2 HOH X	111	-18.855	46.772	46.188	1.00	58.56	O
ATOM	15583	OH2 HOH X	112	45.326	103.771	72.690	1.00	36.87	O
ATOM	15586	OH2 HOH X	113	60.490	82.135	95.444	1.00	35.66	O
ATOM	15589	OH2 HOH X	114	53.497	88.269	70.140	1.00	50.29	O
ATOM	15592	OH2 HOH X	115	32.011	109.362	74.027	1.00	41.73	O
ATOM	15595	OH2 HOH X	116	0.426	9.190	66.809	1.00	41.95	O
ATOM	15598	OH2 HOH X	117	36.454	102.339	72.138	1.00	40.05	O
ATOM	15601	OH2 HOH X	118	-3.746	7.119	61.813	1.00	47.41	O
ATOM	15604	OH2 HOH X	119	16.245	39.647	65.869	1.00	39.33	O
ATOM	15607	OH2 HOH X	120	-15.201	15.272	45.138	1.00	47.46	O
ATOM	15610	OH2 HOH X	121	56.346	83.142	90.536	1.00	36.23	O
ATOM	15613	OH2 HOH X	122	12.750	37.842	70.610	1.00	45.55	O
ATOM	15616	OH2 HOH X	123	8.747	37.163	32.384	1.00	40.95	O
ATOM	15619	OH2 HOH X	124	61.006	109.762	72.425	1.00	57.76	O
ATOM	15622	OH2 HOH X	125	46.773	121.479	78.212	1.00	40.44	O
ATOM	15625	OH2 HOH X	126	46.357	103.993	67.888	1.00	42.09	O
ATOM	15628	OH2 HOH X	127	25.492	45.676	35.124	1.00	55.50	O
ATOM	15631	OH2 HOH X	128	-0.796	46.044	59.885	1.00	44.16	O
ATOM	15634	OH2 HOH X	129	3.729	30.062	68.882	1.00	43.81	O
ATOM	15637	OH2 HOH X	130	48.573	84.962	56.210	1.00	43.53	O
ATOM	15640	OH2 HOH X	131	-6.600	39.522	57.877	1.00	52.66	O
ATOM	15643	OH2 HOH X	132	-23.390	27.562	46.202	1.00	46.29	O
ATOM	15646	OH2 HOH X	133	36.470	27.644	53.311	1.00	50.64	O
ATOM	15649	OH2 HOH X	134	16.019	63.275	53.172	1.00	58.47	O
ATOM	15652	OH2 HOH X	135	-24.310	23.846	44.067	1.00	45.15	O
ATOM	15655	OH2 HOH X	136	10.555	49.737	71.777	1.00	52.75	O
ATOM	15658	OH2 HOH X	137	26.101	85.589	68.136	1.00	54.10	O

357

ATOM	15661	OH2 HOH X 138	23.425	48.004	36.029	1.00	60.82	O
ATOM	15664	OH2 HOH X 139	13.175	50.753	30.871	1.00	50.31	O
ATOM	15667	OH2 HOH X 140	4.424	42.442	47.614	1.00	50.61	O
ATOM	15670	OH2 HOH X 141	21.786	39.941	30.408	1.00	41.84	O
ATOM	15673	OH2 HOH X 142	46.374	98.519	84.033	1.00	49.67	O
ATOM	15676	OH2 HOH X 143	30.667	21.882	56.816	1.00	51.78	O
ATOM	15679	OH2 HOH X 144	6.883	17.302	67.157	1.00	44.68	O
ATOM	15682	OH2 HOH X 145	-8.666	40.701	52.911	1.00	55.03	O
ATOM	15685	OH2 HOH X 146	46.777	99.081	89.567	1.00	38.00	O
ATOM	15688	OH2 HOH X 147	44.860	79.405	78.864	1.00	44.03	O
ATOM	15691	OH2 HOH X 148	-1.046	34.042	71.130	1.00	50.39	O
ATOM	15694	OH2 HOH X 149	50.211	98.627	71.049	1.00	52.24	O
ATOM	15697	OH2 HOH X 150	59.387	81.812	97.546	1.00	37.06	O
ATOM	15700	OH2 HOH X 151	35.147	89.645	81.199	1.00	34.78	O
ATOM	15703	OH2 HOH X 152	8.708	46.589	42.720	1.00	39.52	O
ATOM	15706	OH2 HOH X 153	11.645	48.307	37.723	1.00	27.22	O
ATOM	15709	OH2 HOH X 154	8.993	47.914	47.811	1.00	33.15	O
ATOM	15712	OH2 HOH X 155	10.193	45.169	71.150	1.00	54.72	O
ATOM	15715	OH2 HOH X 156	65.460	87.643	94.825	1.00	44.03	O
ATOM	15718	OH2 HOH X 157	-7.012	39.371	50.073	1.00	32.06	O
ATOM	15721	OH2 HOH X 158	31.654	106.977	74.549	1.00	33.49	O
ATOM	15724	OH2 HOH X 159	21.167	41.889	71.647	1.00	46.47	O
ATOM	15727	OH2 HOH X 160	-25.714	18.816	48.564	1.00	49.63	O
ATOM	15730	OH2 HOH X 161	33.611	28.996	44.403	1.00	53.51	O
ATOM	15733	OH2 HOH X 162	59.252	85.715	92.605	1.00	38.66	O
ATOM	15736	OH2 HOH X 163	56.509	79.788	79.546	1.00	51.27	O
ATOM	15739	OH2 HOH X 164	61.945	84.384	95.225	1.00	37.20	O
ATOM	15742	OH2 HOH X 165	21.292	39.470	65.165	1.00	43.24	O
ATOM	15745	OH2 HOH X 166	15.971	40.815	31.178	1.00	40.20	O
ATOM	15748	OH2 HOH X 167	38.973	28.814	53.562	1.00	54.48	O
ATOM	15751	OH2 HOH X 168	6.544	11.603	61.259	1.00	53.05	O
ATOM	15754	OH2 HOH X 169	-24.303	26.808	42.736	1.00	61.79	O
ATOM	15757	OH2 HOH X 170	34.981	69.780	79.701	1.00	40.54	O
ATOM	15760	OH2 HOH X 171	51.901	104.303	67.464	1.00	47.59	O
ATOM	15763	OH2 HOH X 172	18.091	45.617	30.308	1.00	51.39	O
ATOM	15766	OH2 HOH X 173	34.412	92.254	86.597	1.00	48.91	O
ATOM	15769	OH2 HOH X 174	41.936	82.641	55.668	1.00	38.37	O
ATOM	15772	OH2 HOH X 175	22.163	36.653	32.630	1.00	42.62	O
ATOM	15775	OH2 HOH X 176	28.413	34.741	46.994	1.00	50.06	O
ATOM	15778	OH2 HOH X 177	8.522	49.608	45.435	1.00	46.69	O
ATOM	15781	OH2 HOH X 178	20.863	62.029	52.043	1.00	50.34	O
ATOM	15784	OH2 HOH X 179	4.382	46.594	47.704	1.00	41.40	O
ATOM	15787	OH2 HOH X 180	20.936	27.200	39.092	1.00	46.32	O
ATOM	15790	OH2 HOH X 181	-5.954	7.428	61.983	1.00	46.68	O
ATOM	15793	OH2 HOH X 182	51.690	126.628	74.732	1.00	52.23	O

Claims

1. A crystal comprising at least 150 amino acid residues of the LXR β ligand binding domain.
2. A crystal according to claim 1 comprising the amino acid sequence from Leu-220 to Glu-461 of a human LXR β shown in Figure 5 or an amino acid sequence having at least 95% identity with the sequence and which encodes for a LXR β ligand binding domain.
3. A crystal according to any one of claims 1 to 2 comprising the entire LXR β ligand binding domain.
4. A crystal according to any preceding claim produced using a sequence including helix 12 of LXR β .
5. A crystal according to any one of claims 1 to 4 usable in X-ray crystallography.
6. A crystal according to any one of claims 1 to 5 including a ligand bound to LXR β or a portion thereof.
7. A crystal according to claim 6 in which the ligand is T0901317, GW3965 or any other ligand that binds with reasonable affinity ($IC_{50} < 1000$ nM to the internal LXR β binding cavity).
8. A crystal of LXR β LBD belonging to the space group $P2_12_12_1$ and having the unit cell dimensions $a = 59 \pm 3$ Å, $b = 100 \pm 5$ Å, $c = 176 \pm 3$ Å, $\alpha = \beta = \gamma = 90^\circ$.
9. A crystal of LXR β LBD belonging to the space group $P6_122$ and having the unit cell dimensions $a = 59 \pm 3$ Å, $b = 59 \pm 3$ Å, $c = 294 \pm 3$ Å, $\alpha = \beta = 90^\circ$, $\gamma = 120^\circ$.

10. A crystal of LXR β LBD in complex with a coactivator peptide (TIF2 NR-box 1) belonging to the space group P2₁2₁2 and having the unit cell dimensions $a = 89 \pm 3$, $b = 91 \pm 3$, $c = 131 \pm 3$. $\alpha = \beta = \gamma = 90^\circ$.
11. A crystal according to any of claims 1 to 10 having a resolution determined by X-ray crystallography of better than 3.6 Å.
12. A crystal according to claim 11 having a resolution determined by X-ray crystallography of better than 2.9 Å.
13. A method of using the crystal according to any one of claims 1 to 12 in a drug screening assay comprising:
 - (a) selecting a potential ligand by performing rational drug design with the three-dimensional structure determined for the crystal, wherein said selecting is performed in conjunction with computer modelling;
 - (b) contacting (i.e. docking) the potential ligand with the ligand binding domain of LXR β ; and
 - (c) detecting the binding of the potential ligand for the ligand binding domain.
14. A method according to claim 13, wherein a potential drug is selected on the basis of it having a greater affinity for the ligand domain of LXR β than that of a standard ligand for the ligand binding domain of LXR β .
15. The method of claim 14 wherein the standard ligand in step (c) is T0901317, GW3965, or 24(S),25-epoxycholesterol.
16. The method of any one of claims 13 to 15 further comprising:
 - (d) growing a supplemental crystal containing a protein ligand complex formed between the N-terminal truncated LXR β and the potential drug, wherein the crystal effectively diffracts X-rays for the determination of the atomic coordinates of the protein-ligand complex to a resolution of greater than 5.0 Å;

- (e) determining the three-dimensional structure of the supplemental crystal with molecular replacement analysis;
- (f) selecting a candidate drug by performing a rational drug design with the three-dimensional structure determined for the supplemental crystal, wherein said selecting is performed in conjunction with computer modelling;
- (g) contacting a cell that expresses LXR β ; and
- (h) detecting a measure of protein synthesis in the cell; wherein a candidate drug is identified as such a drug when it inhibits or enhances the expression of protein synthesis in the cell.

17. The method of claim 16 further comprising an initial step that precedes steps (a) wherein initial step consists of determining the three-dimensional structure of a crystal comprising a protein-ligand complex formed between an N-terminal truncated LXR β and T0901317, GW3965, or 24(S),25-epoxycholesterol, wherein the crystal effectively diffracts X-rays for the determination of the atomic coordinates of the protein-ligand complex to a resolution of greater than 5.0 Å.

18. A method of using the crystal according to any one of claims 1 to 12 in a drug screening assay comprising:

- (a) selecting a potential ligand by performing rational drug design with the three-dimensional structure determined for the crystal, wherein said selecting is performed in conjunction with computer modelling;
- (b) adding the potential ligand to a cDNA or protein expression assay regulated by LXR β ; and
- (c) detecting a measure of a cDNA or protein expression; wherein a potential ligand that regulates the expression of protein expression is selected as a potential drug.

19. The method of claim 18 wherein said protein expression is an *in vitro* protein expression assay.

20. A machine-readable data storage medium, comprising a data storage material encoded with machine readable data which, when using a machine programmed with instructions for using said data, is capable of displaying a graphical three-dimensional representation of a crystal structure according to any one of claims 1 to 12 or a homologue of said crystal structure.
21. A method for designing a potential LXR β ligand for the treatment of diseases modulated by the natural LXR β ligand, the method comprising the steps of:
- (a) employing computational means to perform a fitting operation between the chemical entity and a binding site of LXR β receptors identified from a machine-readable storage medium according to claim 20; and
 - (b) analyzing the results of the fitting operation to predict the association between the potential LXR β ligand and the binding site.
22. Method according to claim 21, additionally providing the steps of:
- (c) synthesizing the potential LXR β ligand based on the crystal structure of the said receptor; and
 - (d) assaying the LXR β ligand binding response in a LXR β animal model cell line by measuring one or more *in vivo* effects including but not limited to changes in lipoprotein profile, changes in serum or tissue triglyceride levels, changes in serum or tissue cholesterol levels, changes in serum glucose levels, changes in atherosclerotic lesion size indicating that the LXR β ligand may be used for treatment of diseases modulated by LXR β .
23. A method according to claim 21, additionally providing the steps of:
- (e) synthesising the potential LXR β ligand based on the crystal structure of said receptor; and
 - (f) assaying the LXR β ligand binding response in a LXR β reporter cell line by measuring one or more *in vitro* effects, including but not limited to changes in the activity of a LXR response element driven reporter gene such as alkaline phosphatase, green fluorescent protein, or luciferase, changes indicating that the LXR β ligand may be used for treatment of diseases modulated by LXR β .

24. A method according to any one of claims 21 to 23, additionally comprising the steps of modifying the potential LXR β ligand so that it:
- (a) sterically displaces helix-12; or
 - (b) disrupts the dimerisation surface.
25. A method according to any one of claims 21 to 24, wherein said a potential LXR β ligand is a LXR β antagonist.
26. A method according to any one of claims 21 to 24, wherein said potential LXR β ligand is an agonist.
27. A method according to any one of claims 21 to 24, wherein said potential LXR β ligand is a selective modulator.
28. A method of designing a ligand which will bind to LXR β comprising comparing the shape of a compound with the shape of the ligand-binding cavity of LXR β as obtained from a crystal according to any one of claims 1 to 12, and determining which amino acid or amino acids of the ligand binding domain interact with said compound.
29. A crystallized molecule or molecular complex comprising a binding pocket defined by the structure coordinates of human LXR β ligand binding domain amino acid residues Ser242, Phe268, Phe271, Thr272, Leu274, Ala275, Ser278, Ile309, Met312, Leu313, Glu315, Thr316, Arg319, Ile327, Phe329, Leu330, Tyr335, Phe340, Leu345, Phe349, Ile350, Ile353, Phe354, His435, Gln438, Val439, Leu442, Leu449, Leu453, Trp457, according to the co-ordinate tables or a homologue of said molecule or molecular complex wherein said homologue has a root mean square deviation from the backbone atoms of said amino acids of not more than 1.5Å.
30. A crystallisable composition comprising at least 150 amino acid residues of the LXR β ligand-binding domain.

31. An isolated protein consisting essentially of the amino acid sequence shown from amino acid 220 to amino acid 461 in Figure 5a or the sequence shown in Figure 5b.
32. An isolated protein according to claim 31, additionally comprising a tag, such as a his-tag.
33. A vector, such as a plasmid, containing a nucleic acid molecule encoding a protein consisting of the amino acid sequence shown from 220 to 461 in Figure 5 or the sequence shown in Figure 5b.
34. A host cell containing a vector according to claim 33.
35. An isolated protein having an amino acid sequence identical to the amino acid sequence used in a crystal according to any one of claims 1 to 2.
36. A computer for producing a three-dimensional representation of:
 - (a) a molecule or molecular complex, wherein said molecule or molecular complex comprises a binding pocket defined by the structure coordinates of LXR β amino acid residues Ser242, Phe268, Phe271, Thr272, Leu274, Ala275, Ser278, Ile309, Met312, Leu313, Glu315, Thr316, Arg319, Ile327, Phe329, Leu330, Tyr335, Phe340, Leu345, Phe349, Ile350, Ile353, Phe354, His435, Gln438, Val439, Leu442, Leu449, Leu453, Trp457 according to the co-ordinate tables; or
 - (b) a homolog of said molecule or molecular complex, wherein said homolog comprises a binding pocket that has a root mean square deviation from the backbone atoms of said amino acids of not more than 1.5 Å, wherein said computer comprises:
 - (i) a computer-readable data storage medium comprising a data storage material encoded with computer-readable data, wherein said data comprises the structure of LXR β amino acid residues Ser242, Phe268, Phe271, Thr272, Leu274, Ala275, Ser278, Ile309, Met312, Leu313, Glu315, Thr316, Arg319, Ile327, Phe329, Leu330, Tyr335, Phe340, Leu345, Phe349, Ile350, Ile353, Phe354,

His435, Gln438, Val439, Leu442, Leu449, Leu453, Trp457 according to the co-ordinate tables;

- (ii) a working memory of storing instructions for processing said computer-readable data;
- (iii) a central-processing unit coupled to said working memory and to said computer-readable data storage medium for processing and computer-machine readable data into said three-dimensional representation; and
- (iv) a display coupled to said central-processing unit for displaying said three-dimensional representation.

37. The computer according to claim 36 wherein said computer produces a three-dimensional representation of:

- (a) a molecule or molecular complex defined by structure coordinates of all of the LXR β ligand binding domain amino acid residues set forth in the co-ordinate tables; or
- (b) a homolog of said molecule or molecular complex, wherein said homolog comprises a binding pocket that has a root mean square deviation from the backbone atoms of said amino acids of not more than 1.5 Å; and wherein said computer readable data contains the coordinates of all of the LXR β ligand binding domain amino acid residues as set forth in the co-ordinate tables.

38. A method for determining the three-dimensional structure of a complex between LXR β and a ligand therefore, which comprises:

- (a) obtaining x-ray diffraction data for crystals of the complex as defined in any one of claims 1 to 12; and
- (b) utilizing a set of atomic coordinates as defined in claim 29 or a portion thereof; and coordinates having a root mean square deviation therefrom with respect to conserved protein backbone atoms of not more than 1.5 Å to define the three-dimensional structure of the complex.

39. A method for determining a modelling structure of a protein containing LXR β or a complex of said protein and a ligand, which method comprises:

- (a) providing a three-dimensional structure defined by a set of coordinates as defined in claim 29, or a portion thereof; and coordinates having a root mean square deviation therefrom with respect to conserved protein backbone atoms of not more than 1.5Å;
- (b) generating a three-dimensional model structure of the protein containing LXR β using a homology modelling method and the structure of step (a) as a template; and
- (c) subjecting the resulting model to molecular mechanics energy minimization.

1/7

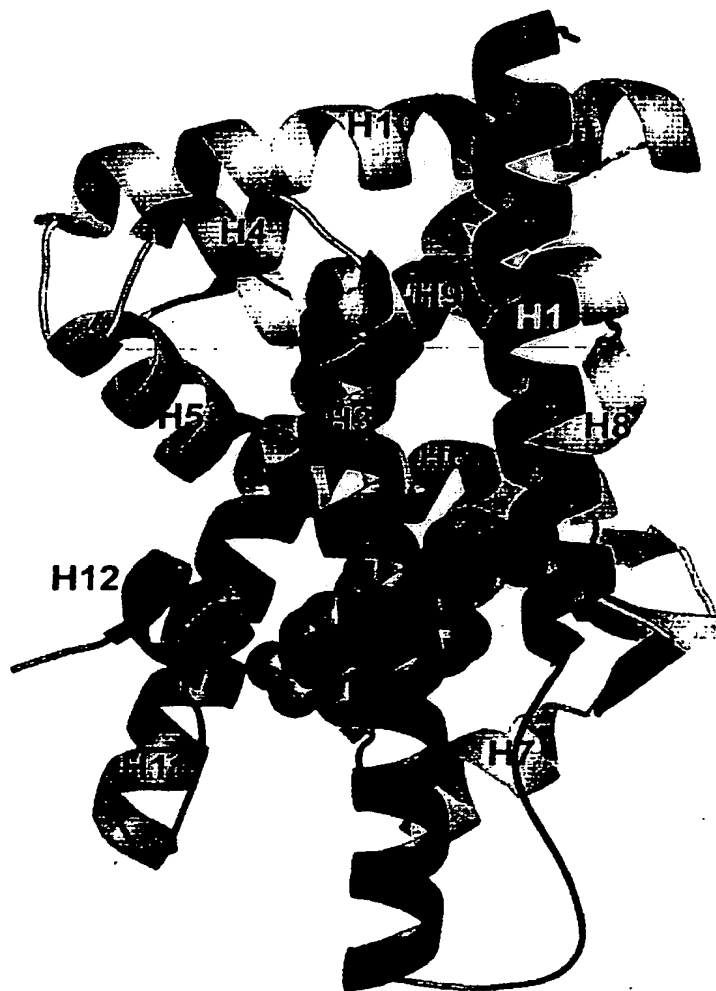


Figure 1

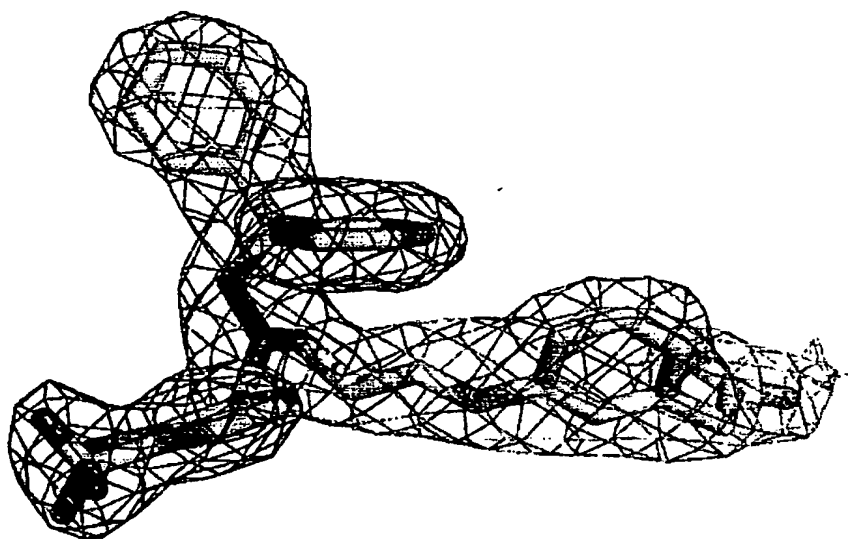


Figure 2

3/7

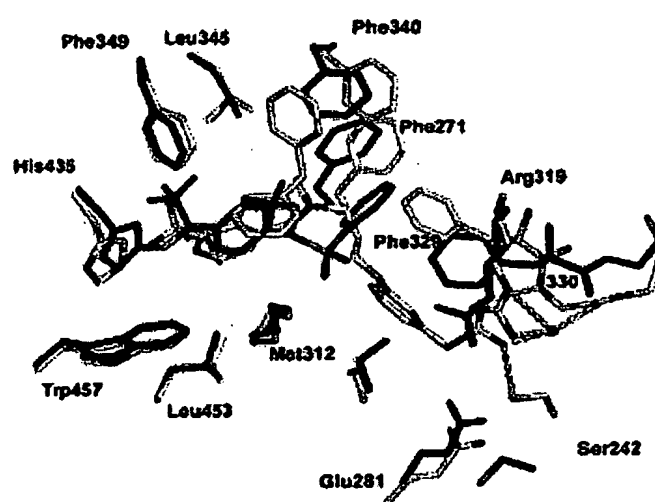


Figure 3

4/7

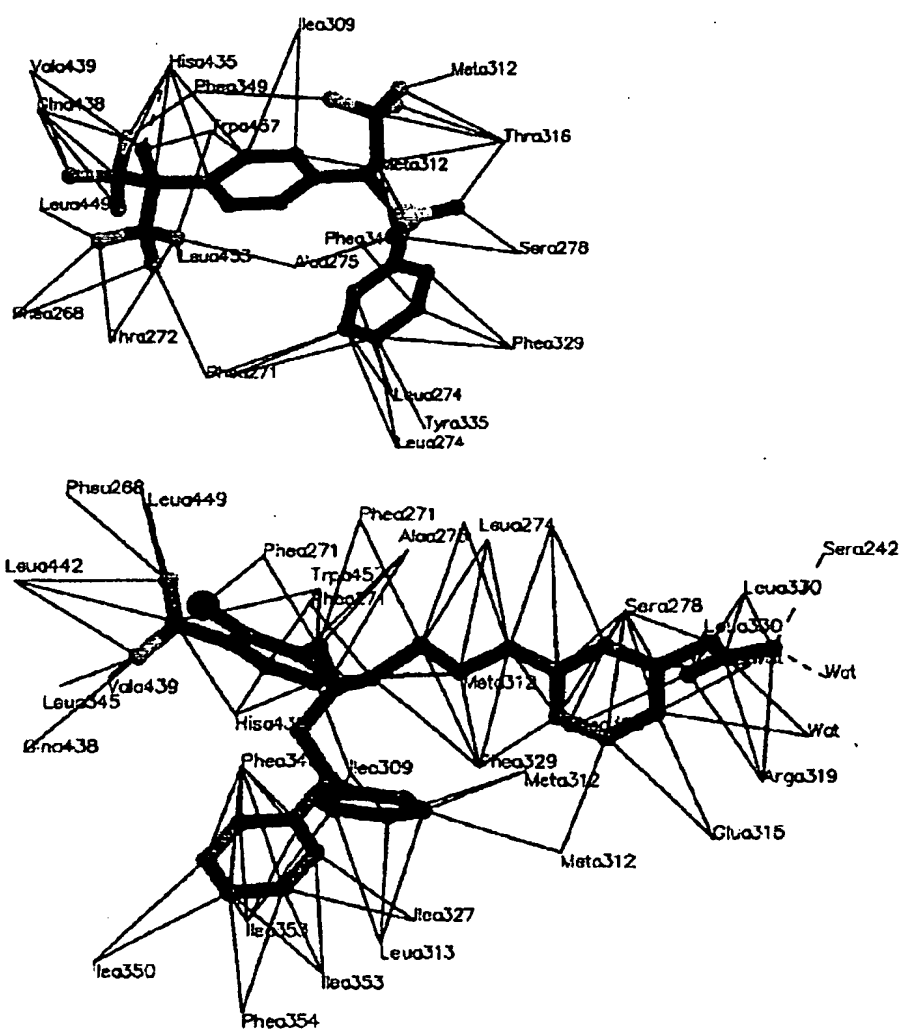


Figure 4.

Figure 5

(a) 1 msspttssld tlpngngppq pgapsssptv keegpepwpq gdpdvpgtd eassacstdw
61 vipdpeeepe rkrkkgpap kmlghelcrvc gdkasgfhyn vlscegckgf frsvvrgga
121 rryacrgggt cqmndafmrk cqqcrlrkck eagmreqcvl seeqirkkki rkqqqqesqs
181 qsqsprvgpg sssasgpga spggseagsq gsgegegvl taaqelmiq lvaaqlqcnk
241 rsfsdqpkvt pwplgdpqs rdarqqrfa ftelaiisvq eivdfakvp gflqlgredq
301 iallkastie imlletarry nhetecitfl kdflyskddf hraglqvefi npifefsrarn
361 rrlglddaey alliaainifs adrpnvqepg rvealqppyv eallsytrik rpqdqlrfpr
421 mlmklvslrt lssvhseqvf alrlqdkklp pllseiwdvh e

(b) 209 gshmggegvl qtaaqelmi qqlvaaqlqcnk
241 rsfsdqpkvt pwplgdpqs rdarqqrfa ftelaiisvq eivdfakvp gflqlgredq
301 iallkastie imlletarry nhetecitfl kdflyskddf hraglqvefi npifefsrarn
361 rrlglddaey alliaainifs adrpnvqepg rvealqppyv eallsytrik rpqdql

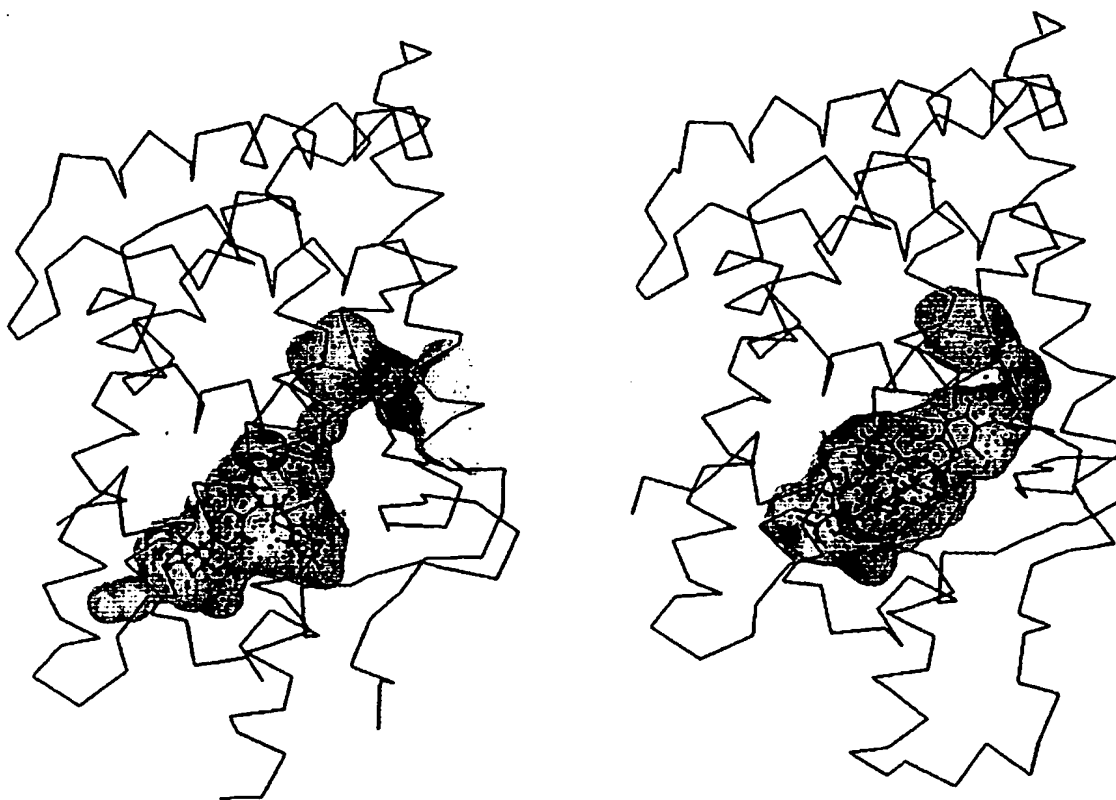


Figure 6

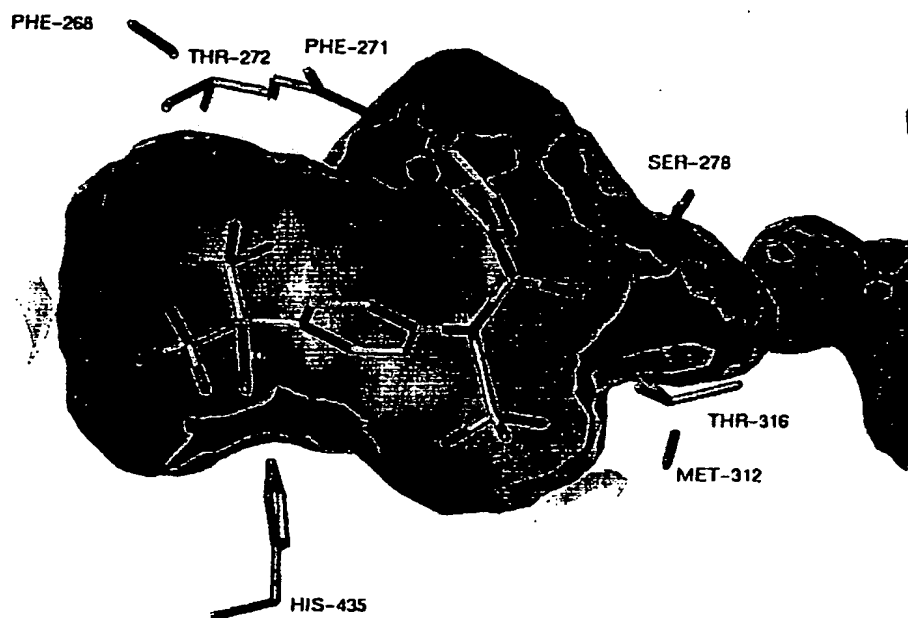


Figure 7

SEQUENCE LISTING

<110> Karo Bio AB

<120> LXR Beta Crystal

<130> P708226PCT

<150> GB0230177.8

<151> 2002-12-24

<160> 2

<170> PatentIn version 3.2

<210> 1

<211> 461

<212> PRT

<213> Homo sapiens

<400> 1

Met Ser Ser Pro Thr Thr Ser Ser Leu Asp Thr Pro Leu Pro Gly Asn
1 5 10 15

Gly Pro Pro Gln Pro Gly Ala Pro Ser Ser Ser Pro Thr Val Lys Glu
20 25 30

Glu Gly Pro Glu Pro Trp Pro Gly Gly Pro Asp Pro Asp Val Pro Gly
35 40 45

Thr Asp Glu Ala Ser Ser Ala Cys Ser Thr Asp Trp Val Ile Pro Asp
50 55 60

Pro Glu Glu Glu Pro Glu Arg Lys Arg Lys Lys Gly Pro Ala Pro Lys
65 70 75 80

Met Leu Gly His Glu Leu Cys Arg Val Cys Gly Asp Lys Ala Ser Gly
85 90 95

Phe His Tyr Asn Val Leu Ser Cys Glu Gly Cys Lys Gly Phe Phe Arg
100 105 110

Arg Ser Val Val Arg Gly Gly Ala Arg Arg Tyr Ala Cys Arg Gly Gly
115 120 125

Gly Thr Cys Gln Met Asp Ala Phe Met Arg Arg Lys Cys Gln Gln Cys
130 135 140

Arg Leu Arg Lys Cys Lys Glu Ala Gly Met Arg Glu Gln Cys Val Leu
145 150 155 160

Ser Glu Glu Gln Ile Arg Lys Lys Lys Ile Arg Lys Gln Gln Gln Gln
165 170 175

Glu Ser Gln Ser Gln Ser Gln Ser Pro Val Gly Pro Gln Gly Ser Ser
180 185 190

Ser Ser Ala Ser Gly Pro Gly Ala Ser Pro Gly Gly Ser Glu Ala Gly
195 200 205

Ser Gln Gly Ser Gly Glu Gly Glu Gly Val Gln Leu Thr Ala Ala Gln
210 215 220

Glu Leu Met Ile Gln Gln Leu Val Ala Ala Gln Leu Gln Cys Asn Lys
225 230 235 240

Arg Ser Phe Ser Asp Gln Pro Lys Val Thr Pro Trp Pro Leu Gly Ala
245 250 255

Asp Pro Gln Ser Arg Asp Ala Arg Gln Gln Arg Phe Ala His Phe Thr
260 265 270

Glu Leu Ala Ile Ile Ser Val Gln Glu Ile Val Asp Phe Ala Lys Gln
275 280 285

Val Pro Gly Phe Leu Gln Leu Gly Arg Glu Asp Gln Ile Ala Leu Leu
290 295 300

Lys Ala Ser Thr Ile Glu Ile Met Leu Leu Glu Thr Ala Arg Arg Tyr
305 310 315 320

Asn His Glu Thr Glu Cys Ile Thr Phe Leu Lys Asp Phe Thr Tyr Ser
 325 330 335

Lys Asp Asp Phe His Arg Ala Gly Leu Gln Val Glu Phe Ile Asn Pro
 340 345 350

Ile Phe Glu Phe Ser Arg Ala Met Arg Arg Leu Gly Leu Asp Asp Ala
 355 360 365

Glu Tyr Ala Leu Leu Ile Ala Ile Asn Ile Phe Ser Ala Asp Arg Pro
 370 375 380

Asn Val Gln Glu Pro Gly Arg Val Glu Ala Leu Gln Gln Pro Tyr Val
 385 390 395 400

Glu Ala Leu Leu Ser Tyr Thr Arg Ile Lys Arg Pro Gln Asp Gln Leu
 405 410 415

Arg Phe Pro Arg Met Leu Met Lys Leu Val Ser Leu Arg Thr Leu Ser
 420 425 430

Ser Val His Ser Glu Gln Val Phe Ala Leu Arg Leu Gln Asp Lys Lys
 435 440 445

Leu Pro Pro Leu Leu Ser Glu Ile Trp Asp Val His Glu
 450 455 460

<210> 2
 <211> 208
 <212> PRT
 <213> Artificial

<220>
 <223> The crytallised protein sequence with the first four non-L
 XR Beta
 amino acid residues (GSHM) fused to the N-terminal end of
 residues 213-416 originating from human LXR Beta

<400> 2

Gly Ser His Met Gly Glu Gly Glu Gly Val Gln Leu Thr Ala Ala Gln
 1 5 10 15
 Glu Leu Met Ile Gln Gln Leu Val Ala Ala Gln Leu Gln Cys Asn Lys
 20 25 30
 Arg Ser Phe Ser Asp Gln Pro Lys Val Thr Pro Trp Pro Leu Gly Ala
 35 40 45
 Asp Pro Gln Ser Arg Asp Ala Arg Gln Gln Arg Phe Ala His Phe Thr
 50 55 60
 Glu Leu Ala Ile Ile Ser Val Gln Glu Ile Val Asp Phe Ala Lys Gln
 65 70 75 80
 Val Pro Gly Phe Leu Gln Leu Gly Arg Glu Asp Gln Ile Ala Leu Leu
 85 90 95
 Lys Ala Ser Thr Ile Glu Ile Met Leu Leu Glu Thr Ala Arg Arg Tyr
 100 105 110
 Asn His Glu Thr Glu Cys Ile Thr Phe Leu Lys Asp Phe Thr Tyr Ser
 115 120 125
 Lys Asp Asp Phe His Arg Ala Gly Leu Gln Val Glu Phe Ile Asn Pro
 130 135 140
 Ile Phe Glu Phe Ser Arg Ala Met Arg Arg Leu Gly Leu Asp Asp Ala
 145 150 155 160
 Glu Tyr Ala Leu Leu Ile Ala Ile Asn Ile Phe Ser Ala Asp Arg Pro
 165 170 175
 Asn Val Gln Glu Pro Gly Arg Val Glu Ala Leu Gln Gln Pro Tyr Val
 180 185 190
 Glu Ala Leu Leu Ser Tyr Thr Arg Ile Lys Arg Pro Gln Asp Gln Leu

195

200

205